S/M NO. : TSP900PEF0

Service Manual

32" PLASMA PDP TV

CHASSIS : SP-900PF

Model : DPP-32F1BMB

Caution

: In this Manual, some parts can be changed for improving. their performance without notice in the parts list. So, if you need the latest parts information, please refer to PPL(Parts Price List)in Service Information Center.

DAEWOO ELECTRONICS

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II. Parts of MODULE

1. PDP MODULE SERVICE MANUAL

I. Parts with the exception of MODULE

1. Safety Precautions

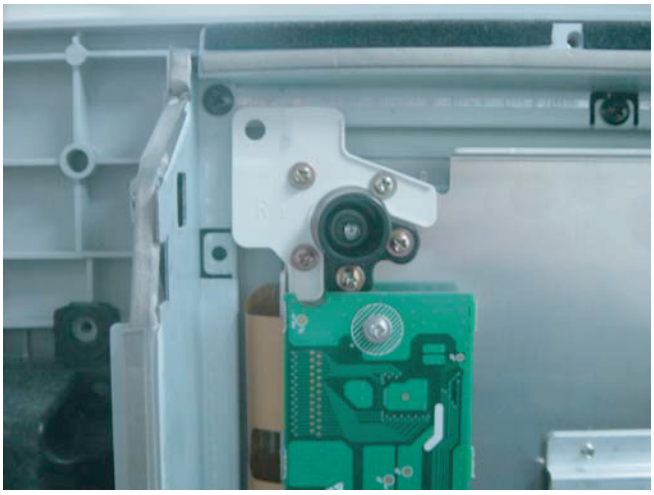
(1) When moving or laying down a PDP Set, at least two people must work together.
Avoid any impact towards the PDP Set.

(2) Do not leave a broken PDP Set on for a long time. To prevent any further damages, after checking the condition of the broken Set, make sure to turn the power(AC) off.

(3) When opening the BACK COVER, you must turn off power(AC) to prevent any electric shock. When PDP is operating, high voltage and high current inside the Set can cause electric shocks.

(4) When loosening screws, check the position and type of the screw.
Sort out the screws and store them separately for reassembling.
Because screws holding PCBs are working as electric circuit GROUNDING, make sure to check if any screw is missing when assembling / reassembling.
Do not leave any screws inside the set.

(5) If you open the BACK COVER, you will see a Panel Gas Exhaust Tube (Picture. 1-1) inside the bracket. If this part is damaged, the entire PDP PANEL must be replaced. Therefore, when working with the set, be careful not to damage this part.



Picture.1-1 Panel Gas Exhaust Tube

(6) A PDP Set contains different kinds of connector cables.
When connecting or disconnecting cables, check the direction and position of the cable beforehand.

(7) Connect / disconnect the connectors slowly with care especially FFC(film) cables and FPC cables.
Do not connect or disconnect connectors instantaneously with force, and handle them carefully for reassembling.

(8) Connectors are designed so that if the number of pins or the direction does not match, connectors will not fit.
When having problem in plugging the connectors, check their kind, position, and direction.

2. Product Specification

2-1. SPECIFICATION

ITEM	SPECIFICATION	REMARK
1. GENERAL		
1-1. MODEL NO	DPP-32F1BMB	
1-2. CHASSIS NO	SP-900PF	
1-3. SCREEN SIZE	42”(16:9)	
1-4. COUNTRY	Europe, CIS, Middle east Asia	
1-5. RESOLUTION	852(H) X 480(V)	
1-6. REMOCON TYPE	R-55E05	
1-7. SAFETY STANDARD	SASO(Saudi Arabia), PAI(Kuwait), CIS(GOST)	Basic : CB multi
1-8 .TUNING METHOD	VS	
1-9. MEMORY CHANNEL	99CH	
2. MECHANICAL		
2-1. APPEARANCE 1) WITHOUT STAND 2) WITH STAND	 WxHxD = 825 x 561 x 87.8 mm WxHxD = 825 x 603.2 x 233.6 mm	
2-2. WEIGHT 1) WITHOUT STAND 2) WITH STAND	 18.5 Kg 19.2Kg	
3. ELECTRICAL		
3-1. VIDEO INPUT	COMPOSITE(NTSC, PAL, SECAM, PAL-M/N, NTSC4.43) 1 Ports & S-VHS(50/60Hz Y/C) 1 Ports	
3-2. DTV/DVD INPUT	1080i, 720P, 480P, 480i, 576P, 576i (Y, Pb/Cb, Pr/Cr COMPONENT SIGNAL) 1 Port	
3-3.SCART INPUT	SCART(COMPOSITE, R, G, B, SOUND R/L) 1 Port SCART(COMPOSITE, SOUND R/L) 1 Port	
3-4. PC INPUT	VGA ~ WXGA(Dot clock : 110MHz), 15 PIN D-SUB 1 Port	
3-5. HDMI INPUT	HDMI-H INPUT(HDMI Jack) 1 Port	
3-6. TV INPUT 1) COLOR STANDARD 2) ANTENNA IN 3) RECEPTION CHANNEL 4) IF & SUBCARRIER 3-6. SOUND INPUT	 PAL B/G+I/I+D/K, L-SECAM, L’--SECAM ONE INPUT 75 Ω Unbalanced (DIN Standard) VHF LOW : E2 ~ S6Ch. VHF HIGH : S7 ~ S36Ch. UHF : S37 ~ E69 Ch. L’-SECAM : FB, FC1, FC PIF : 38.90MHz(PAL, L-SECAM), 33.9MHz(L’-SECAM) SIF : 33.40MHz(B/G), 32.90MHz(I/I) 32.4MHz(D/K,L-SECAM), 40.4MHz(L’-SECAM) VIDEO 1 Port, DTV/DVD 1 Ports, SCART 2Ports, PC / HDMI 1 Port	

Product Specification

ITEM	SPECIFICATION	REMARK
3-7. SPEAKER OUTPUT	10W(R) + 10W(L)	
3-8. POWER REQUIREMENT	AC 100V~240V, 50/60Hz	
3-9. POWER CONSUMPTION	200 W	
3-10.Phone Jack(Upgrade)	S/W Upgrade	
3-11. AV OUTPUT	SCART(CVBS, SOUND R/L) 1 Port	
3-12. FUNCTION 1) SCALING	HDMI : Screen Mode(16:9, 4:3) PC : Screen Mode(16:9, 4:3), H/V Position, Auto TV / AV : Screen Mode(16:9, 4:3, LB(16:9), LBS(16:9), 14:9, LB(14:9), LBS(14:9), Auto) COMPONENT : Screen Mode(16:9, 4:3)	
2) OSD Language	19 Languages (English, Greek, Dutch, German, Russian, Rumanian, Swedish, Danish, Finnish, Norwegian, Spanish, Italian, Franch, Polish, Portuguese, Czech, Hungarian, Arab, Parsi)	
3) PIP/POP	TV, Video, S-Video / HDMI	
4) OTHERS	Still, Sleep Mode, Sound Mode, Timer, Screen Mode, TeleText, MGDi WSS	
4. OPTICAL		
4-1. SCREEN SIZE	32"(81.2Cm) DIAGONAL	
4-2. ASPECT RATIO	16 : 9	
4-3. NUMBER OF PIXELS	852(H) X 480(V)	
4-4. DISPLAY COLOR	1,073,000,000 Colors (10 Bits for each RGB)	
4-5. CELL PITCH	277㎛ (H) X 830㎛ (V) (1 Pixel = a Set of RGB Cells)	
4-6. PEAK LUMINANCE	Typical 550cd/ß≥ (25% White Window, 60Hz) Average 60:1 (In a bright room with 100Lux at center, 60Hz)	
4-7. CONTRAST RATIO	10,000:1	
4-8. VIEWING ANGLE	FREE	
5. USERCONTROL & ACCESSORIES		
5-1. CONTROL BUTTON(SET)	SOFT S/W : MOVE/CH(UP, DOWN), VOLUME(LEFT, RIGHT), MENU, INPUT SELECT ,POWER	
5-2. REMOTE CONTROL (R-55E05)	Power, Recall, 10KEY(0~9), Still, Screen Size, Menu, TV, AV, Multimedia, PREV PR, Mute, PR(UP/DOWN), VOL(UP/DOWN), TeleText, CYAN, Index, Red, Green, Yellow, Reveal, Update, Expand, Subpage, Hold, Picture Mode, Sound Mode, MTS, Sound Effect, PIP, PR Up(Sub), Sleep Timer, EDIT, Position, PR Down(Sub), Swap, Source(Sub), MGDI, COLOR TEMP	
5-3. ACCESSORIES	REMOTE CONTROL, INSTRUCTION MANUAL, POWER CORD	
5-4. OPTIONAL PARTS	WALL HANGER	

2-2. Available Input Singnal

1) PC&HDMI

Resolution	H.Freq.(kHz)	V.Freq.(Hz)	Remar	HDMI	PC
640 x 480	31.469	59.940	DOS	O	O
	37.861	72.809	VESA	O	O
	37.500	75.000	VESA	O	O
720 x 400	31.469	70.087	IBM	O	O
800 x 600	35.156	56.250	VESA	O	O
	37.879	60.317	VESA	O	O
1024 x 768	48.363	60.004	VESA	O	O
1280 x1024	63.981	60.020	VESA	O	O

2) Component
- 720p - 50 / 60Hz
- 480p/i - 50 / 60Hz
- 576p/i - 50 / 60Hz

3) Video
- PAL, PAL - M, PAL - N
- NTSC, NTSC 4.43
- SECAM

3. The Feature of Inside

3-1. Main PCB's Connection Diagram

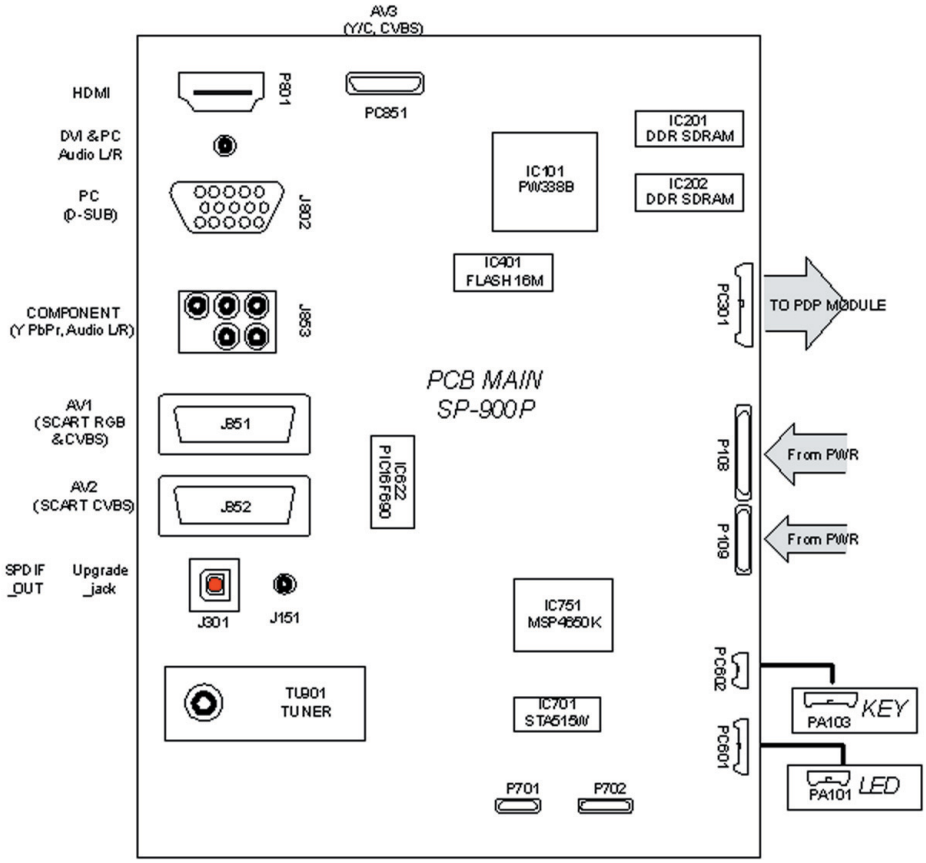


Fig.1 Main PCBs Block Diagram

3-2. Main PCB's Block Diagram

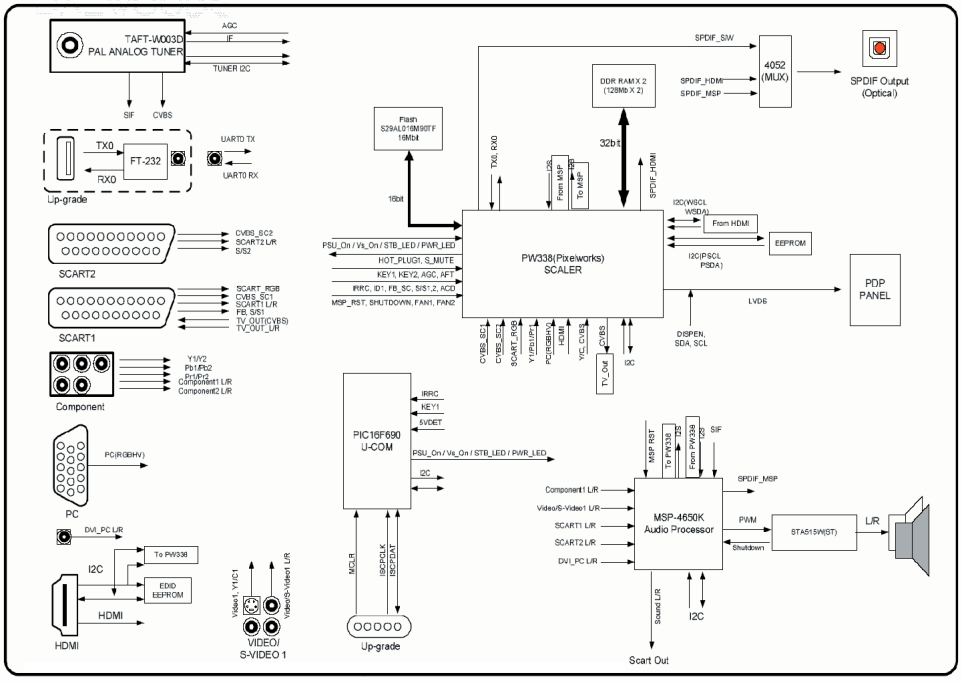


Fig.2 Signal Block Diagram : DPP-42A2

3-3. Power Specification

1) Input and Environmental Requirement

Input Requirement	Description
Nominal Input Voltage	AC100V to AC240V
Input Voltage Variation Range	AC90V to AC264V
Nominal Frequency	50 /60 Hz
Frequency Variation Range	47Hz to 63Hz
Inrush Current	50A peak MAX.

Environment Requirement	Description
Operating Temperature Range	0 to 55 Deg.
Operating Humidity Range	10 to 90%
Storage Temperature Range	-20 to 70 Deg.
Cooling system	Convection

2) Output Characteristics

Output Name	Output Typical (V)	Variable Voltage Range(V)	Voltage Tolerance (%)	Output Current(A)			Ripple & Noise (mVp-p)
				Min.	Typical	Max.	
STBY5V	5.0	-	±	0	1.2	1.7	100mVp-p
5Vsc	5.0	-	±	0.1	0.7	1.7	200mVp-p
9Vsc	9	-	±	c0	0.3	0.5	200mVp-p
16Vsc	16	-	±1	c0.03	1.3	2.2	500mVp-p

3. Connector

NO.	YW396-09V	SMW250-15
1	5V	AC-DET
2	GND	RL_ON
3	Va	VS_ON
4	GND	5V_MNT
5	GND	M5V_ON
6	GND	GND
7	NC	GND
8	Vs	16Vsc
9	Vs	16Vsc
10		GND
11		9Vsc
12		GND
13		5Vsc
14		STBY5V
15		GND
	P812	P814

4. Default Setting in User Menu OSD

4-1. Picture

1) Mode

	Normal	Dynamic	Cinema	User
Brightness	48	46	55	Undefined
Contrast	70	74	60	Undefined
Sharpness	7	8	6	Undefined
Colour	55	60	50	Undefined
Tint	50	50	50	Undefined

* HDMI & PC Input - Only brihgtness and contrast are available.

2) Default Value of Other Functions

Function	Default Value
Colour Temp	Normal
N.R.	On

* N.R. means the noise reduction
* HDMI & PC don't support N.R. functions

4-2. Sound

1) Mode

	Normal	Movie	Music	News	User
120 Hz	32	50	48	15	Undefined
200 Hz	32	50	48	15	Undefined
500 Hz	32	38	38	32	Undefined
1.2 kHz	32	28	15	50	Undefined
3 kHz	32	28	15	50	Undefined
7.5 kHz	32	40	42	32	Undefined
12 kHz	32	48	56	15	Undefined

2) Default Value of Other Functions

Function	Default Value
Balance	0
Effect	Off
AVC	Off

Default Setting in User Menu OSD

4-3. Screen

1) Mode

	16 : 9	4 : 3	LB (16:9)	LBS (16:9)	14 : 9	LB (14:9)	LBS (14:9)
Component	O	O	X	X	X	X	X
TV	O	O	O	O	O	O	O
AV	O	O	O	O	O	O	O
PC	O	O	X	X	X	X	X
HDMI	O	O	X	X	X	X	X

* H. Position, V. Position, and Auto screen size is available in only PC mode.

4-4. Feature

1) Mode

Function	Background	Language	Child Lock	MGDi plus	Auto Power
Default Value	10	English	Off	On	Off

* HDMI & PC don't support MGDI function.

2) Time Setting

Function	Clock	Auto Clock	Off Timer	Off Time	Wake Timer	Wake Time	Wake CH.	Wake Vol.
Default Value	Undefined	On	Off	PM 12:00	Off	PM 12:00	1	20

3) ISM

Function	Pixel Shift	Low Bright	Image Invert
Default Value	Off	On	Off

5. Service Mode

To enter SERVICE MODE,

A. Press ***“ ▼VOL” -> “MUTE ” -> “RECALL” -> “MUTE”*** button of remote controller (R-55E05)

or

B. Press ***“S9”*** button of SERVICE REMOTE CONTROLLER.

[Note] In the first line, there is the model name and the version of the upgraded program on the PDP set.

5-1. Default Value of Pw338B_1 and Pw338B_2

	Sub Bias	Sub Gain	Bias R	Bias G	Bias B	Gain R	Gain G	Gain B
Pw338B_1	32	72	32	30	41	28	32	45
Pw338B_2	32	64						

1) Pw338B_1
- Sub Bias : For BRIGHTNESS adjustment (All inputs)
- Sub Gain : For CONTRAST adjustment (All inputs)
- Bias R : For R BRIGHTNESS adjustment (All inputs)
- Bias G : For G BRIGHTNESS adjustment (All inputs)
- Bias B : For B BRIGHTNESS adjustment (All inputs)
- Gain R : For R CONTRAST adjustment (All inputs)
- Gain G : For G CONTRAST adjustment (All inputs)
- Gain B : For B CONTRAST adjustment (All inputs)

2) Pw338B_2
- Sub Bias : For HDMI BRIGHTNESS adjustment
- Sub Gain : For HDMI CONTRAST adjustment

5-2. FrontEnd_1

Function	R Offset	G Offset	B Offset	R Gain	G Gain	B Gain
Default Value	512	512	512	512	512	512
Function	Y Offset	Pb Offset	Pr Offset	Y Gain	Pb Gain	Pr Gain
Default Value	512	512	512	512	512	512

- RGB offset values will be set by executing ‘RGB Auto Cal’ in service mode.
- YPbPr offset values will be set by executing ‘YPbPr Auto Cal’ in service mode.

- The automatically set offset values may different from the default value depend on B/D. However, the main B/D should be replaced or contact Kunpo R&D center in Korea if the **OFFSET** values differ more than ±20 from default value.

5-3. FrontEnd_2

	AV Brt	AV Cont
FrontEnd_2	128	128

5-4. MGDI

Function	VEH	2D-Peaking	BWE Enable	BWE Gain	BWE Mid gain
Default Value	1	0	0	4	2
Function	BWE TCONST	BWE BWCOFS	HFILTER	VFILTER	
Default Value	5	16	6	6	

5-5. Msp46X0

Function	Sc pScale	Fm pScale	Nic pScale	HDMI pScale
Default Value	27	51	85	20
Function	BBE pScale	Mvoice Level	Audio Delay	
Default Value	30	12	40	

- In Msp46X0,
  - Sc pScale : Prescale adjustment for external input (AV, Component, PC etc.)
  - Fm pScale : FM/AM prescale adjustment
  - BBE Level : BBE level control
  - HDMI pScale : HDMI prescale adjustment
  - Mvoice Level : Mvoice level control
  - Audio Delay : Sound delay control

5-6. Misc

Function	Tst Ptrn AT	Tst Ptrn MA	TV Auto Off	Search Mode
Default Value	Undefined	Undefined	On	60Hz

- Tst Ptrn AT shows five cycled patterns (white, black, red, green, blue) every 1 minute automatically
- Tst Ptrn MA shows five cycled patterns manually by pressing volume up key.

5-7. Panel

Function	Sync Mode	Bright Mode	Power Mode	Gamma Mode	Panel Temp
Default Value	AUTO	100%	100%	2.2N	**.*

- Panel Temp indicates the current temperature of the panel.

5-8. Reset

- Level 1 - Resets all data in E^2PROM other than HDCP key, EDID, RGB offset and YPbPr offset of FrontEnd_1.
- Level 2 - Resets all data in E^2PROM other than the exception of Level 1 and Pw338B_1.
- Factory - Resets the data of auto search, language setting, time setting, and the user menu values that could be reset by ‘Initialize’ function in Feature mode.

6. Adjusting Method

6-1. MODULE POWER Adjustments and Test Point Locations

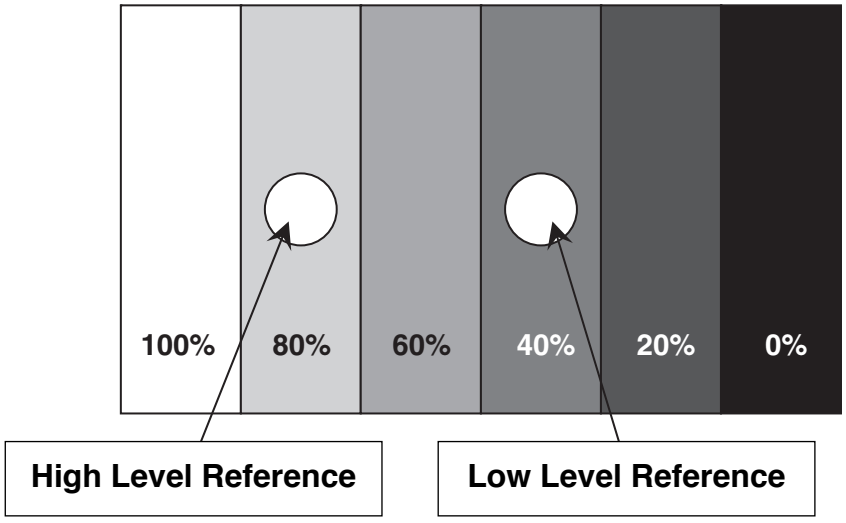
• Video pattern condition : 100 IRE Full White Pattern
• Adjust voltages (Vadd, Vsus) to the values that module maker labeled on the PDP panel. If there are some problems in picture after adjusting, you should classify that PDP module as a fault and contact to PDP module maker.

1) Vd (Vadd Voltage) : Data address voltage
- Measurement equipment : Digital Volt Meter (DC Volt mode)
- TP : P812 #3
- Adjusting Volume : VR901
- Adjusting Voltage : Voltage written in the Label, which is located in the upper middle side of PDP Module. (Typical Voltage : 55 ~ 66 V)

2) Vs (Vsus Voltage) : Sustain voltage
- Measurement equipment : Digital Volt Meter (DC Volt mode)
- TP : P812 #9
- Adjusting Volume : VR951
- Adjusting Voltage : Voltage written in Label, which is located in the upper middle side of PDP Module. (Typical Voltage : 180 ~ 200 V)

6-2. White Balance Adjustments

1) Apply 5 Step Gray Scale pattern to Video input terminal



2) Check initial data of User Menu [refer to **4-1. Picture (dynamic)**]

3) To enter Service mode, press button “VOL DOWN -> MUTE -> RECALL -> MUTE” on the remote control and select PW338_1, then check initial data of Service mode [refer to **5. Service Mode**].

Adjusting Method

4) Attach a sensor of White Balance Meter (CA-100) to 80% of white level on the screen.

5) Adjust White Balance by varying Gain of R, G, B
   - Gain of R, G, B should be adjusted to DP ±10, if out of these range then classify as a fault.
   - Set Color Coordinate to **x=0.275 ±0.005, y=0.285 ±0.005 (Low : 0.295)** and the Color Temperature should be over 10,000-degree K (standard R&D center equipment).

6) Attach a sensor of White Balance Meter to 40% of white level on the screen.

7) Adjust White Balance by varying the BIAS values of R, G, B
   - BIAS Values of R,G,B should be adjusted to DP ±10 ,if out of these range then classify as a fault.
   - Set the Color Coordinate to **x=0.275 ±0.003, y=0.295 ±0.003** (standard R&D center equipment).
   - Does not need to adjust if the deviation of color coordinate is within ±0.003.

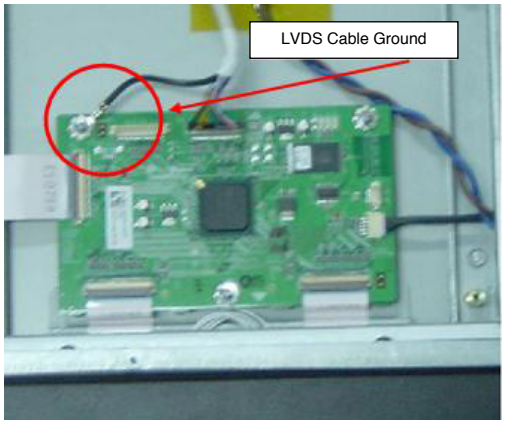
8) Repeat No 4) to No 7) until getting the Color Coordinate is **x=0.275 ±0.003, y=0.295 ±0.003 at 40%** and **x=0.275 ±0.005, y=0.285 ±0.005 at 80%** white level. Then adjust Sub Contrast to **over 140 Cd/m^2** after attaching a sensor of White Balance Meter to 100% of white level on the screen.

9) To exit from Service mode, press Menu button on the remote control.

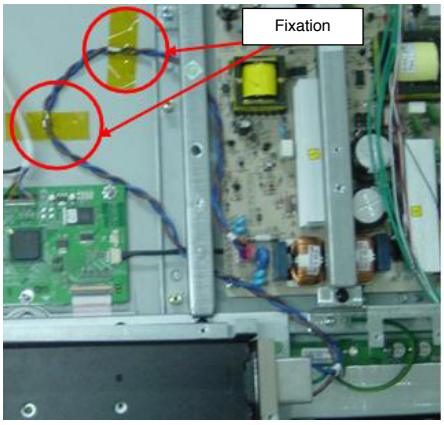
7. Noticeable Point While Assembling

A. DPP-32F1BMB Inside Feature

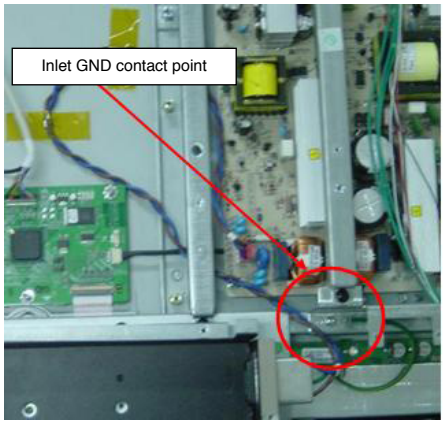
B. LVDS connect (Module)



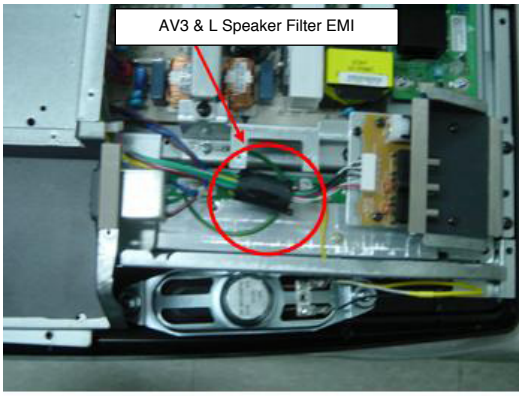
C. Inlet Power Cable Fixing



D. Inlet Ground contact

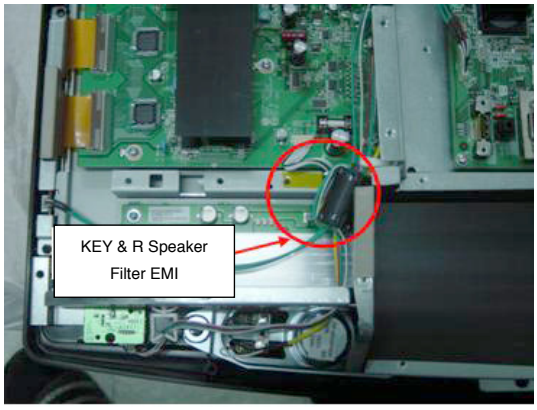


E. AV3 Cable Arrangement

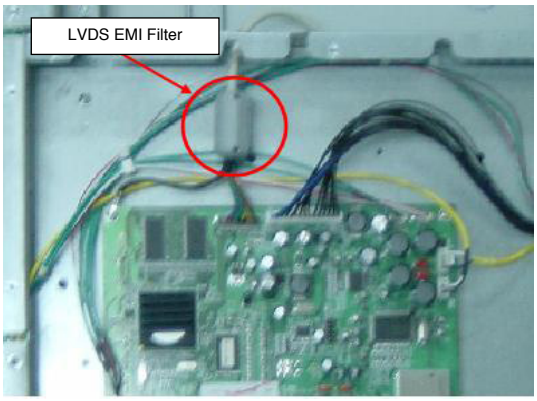


Noticeable Point While Assembling

F. Side Key Cable Arrangement

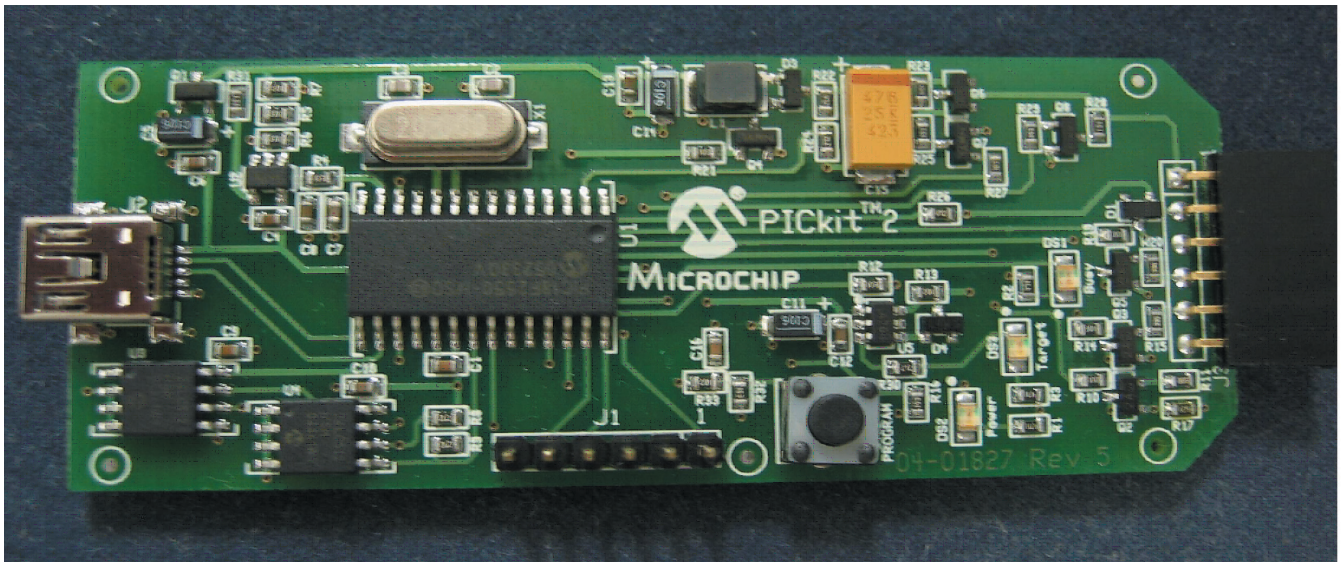


G. Main B/D Cable Arrangement



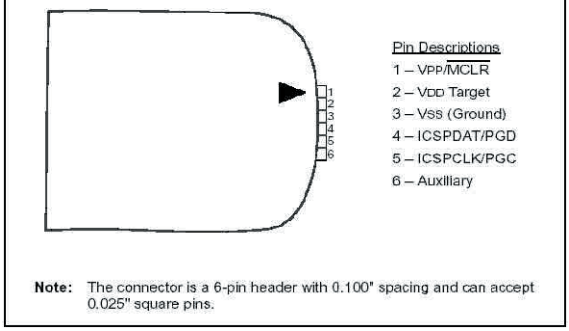
8. Software Upgrade Methord

8-1. Pic upgrade



PICkit 2 Micro Controller Programmer

FIGURE 1-2: PICkit™ 2 CONNECTOR PINOUT

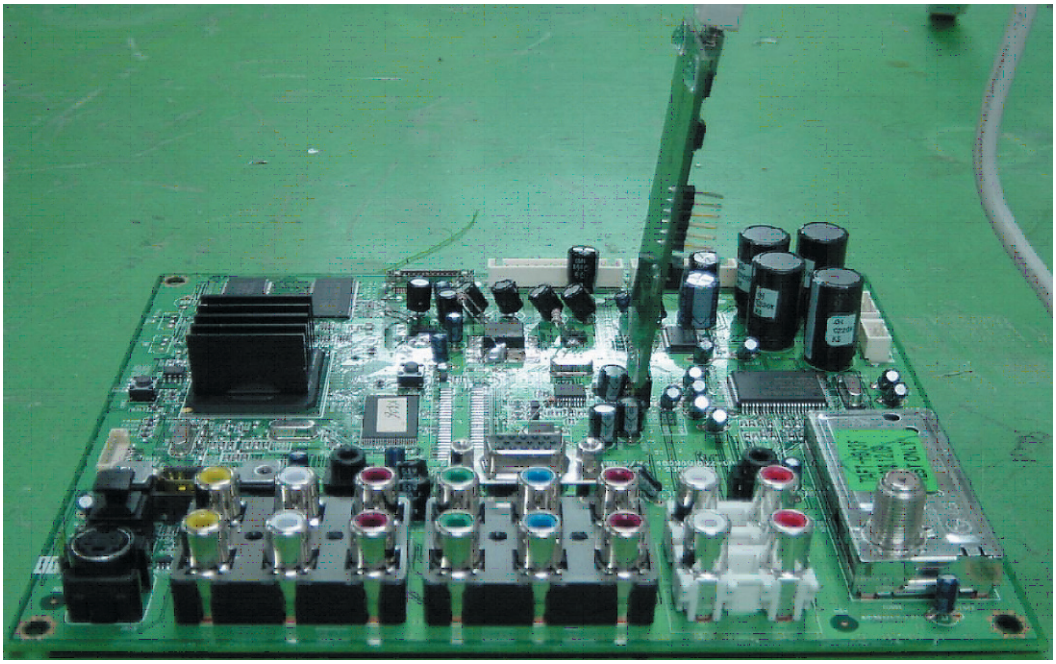

Pin Descriptions
1 – VPP/MCLR
2 – VDD Target
3 – VSS (Ground)
4 – ICSPDAT/PGD
5 – ICSPCLK/PGC
6 – Auxiliary
Note: The connector is a 6-pin header with 0.100" spacing and can accept 0.025" square pins.

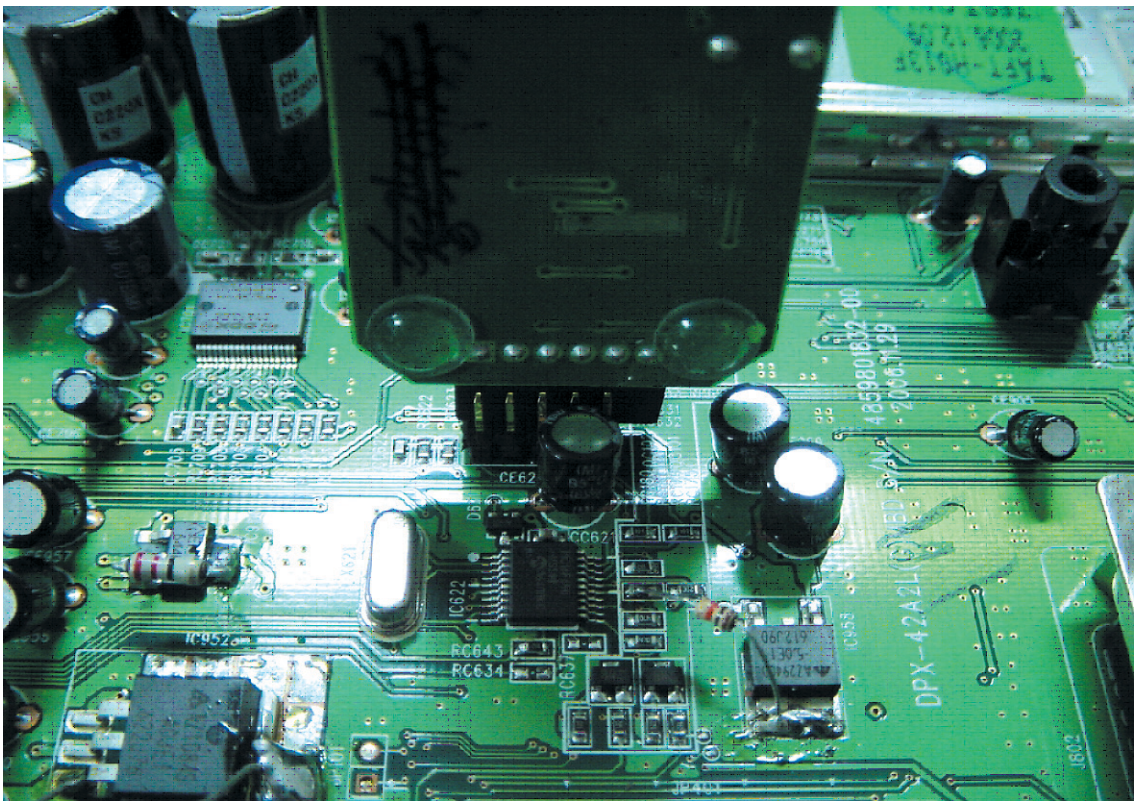
PICkit 2 Connector Pinout

Software Upgrade Methord

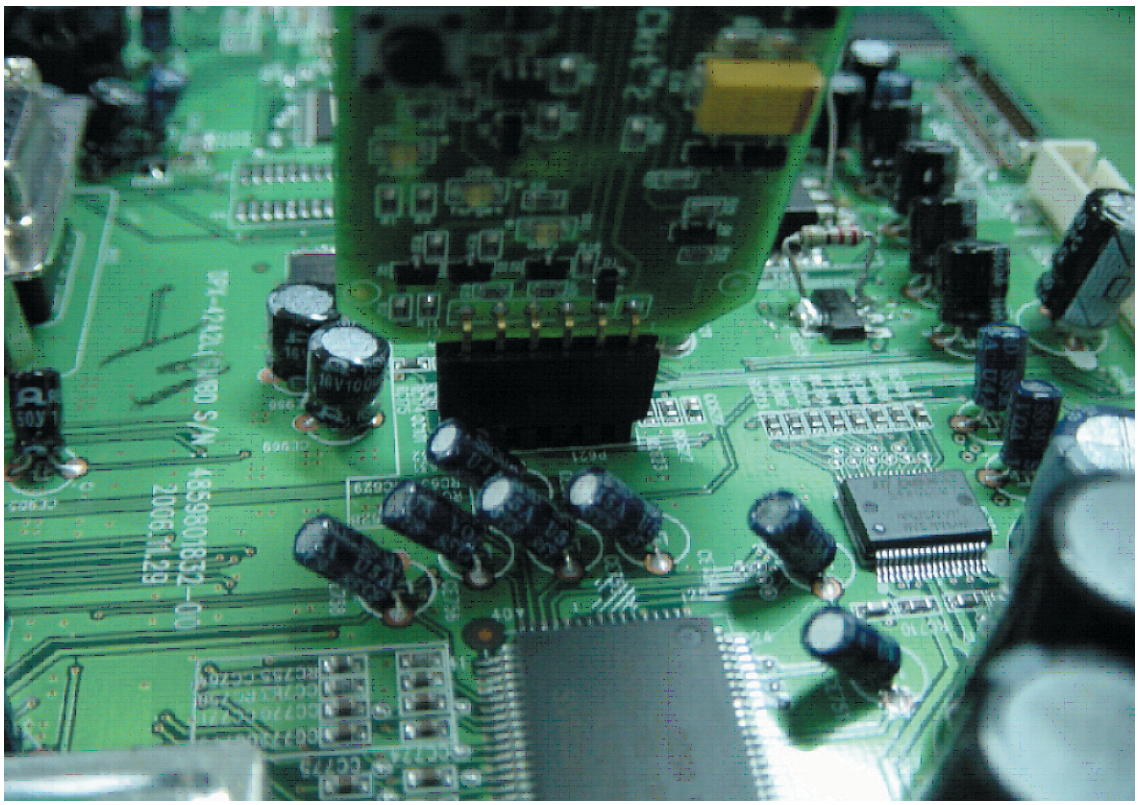
1) Main pcb Power off

2) Connecting the Pic upgrade board to Main pcb as shown below



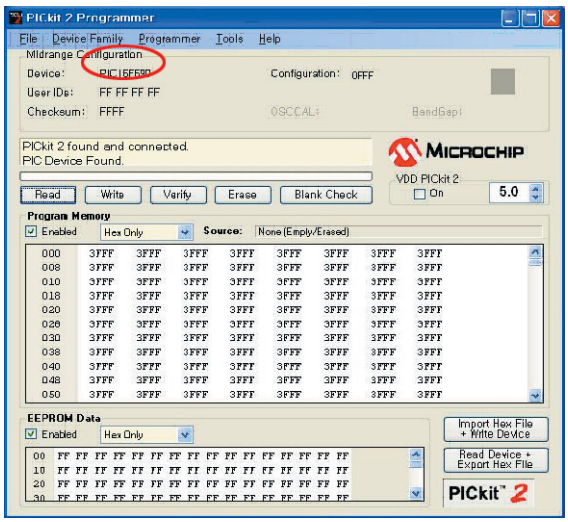


Software Upgrade Methord

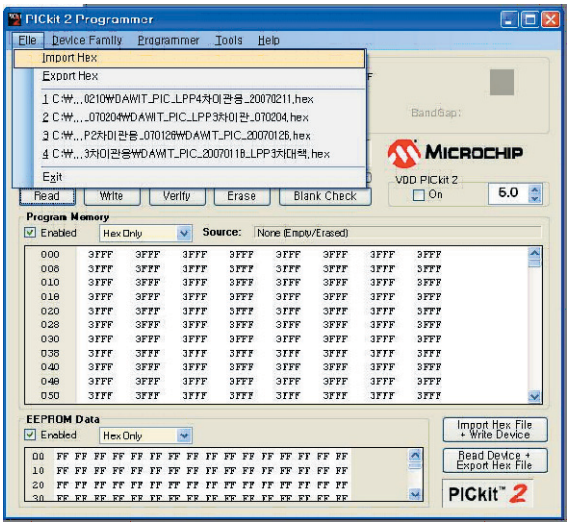


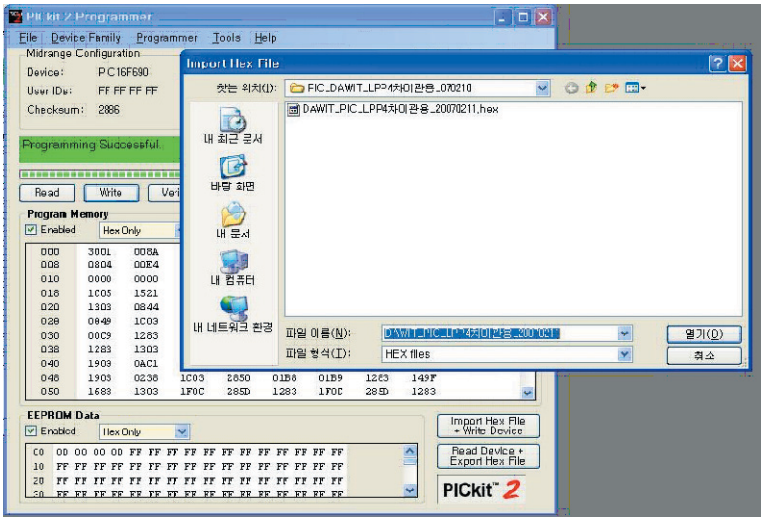
3) Run PICkit 2 Microcontroller Programmer

4) Please confirm if pickit 2 microcontroller programmer deteced device(PIC16F690) appropriately or not

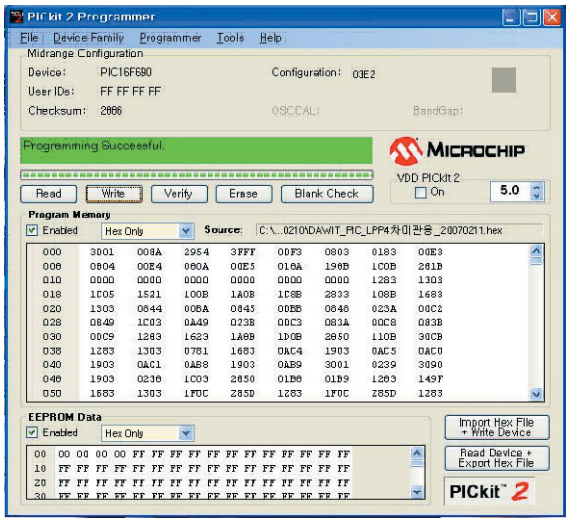


5) Importing HEX file for upgrade



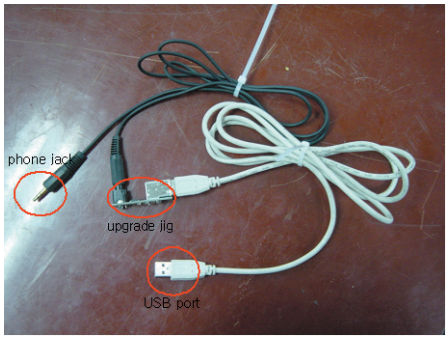


6) Write Click.


PICkit 2 Programmer
File
Device Family
Programmer
Tools
Help
Midrange Configuration
Device: PIC16F690
Configuration: 03E2
User IDs: FF FF FF FF
Checksum: 2866
OSCCAL:
BandGap:
Programming Successful.
MICROCHIP
VDD PICkit 2
On
5.0
Read
Write
Verify
Erase
Blank Check
Program Memory
Enabled
Hex Only
Source:
C:\...0210\DAWIT_PIC_LPF4차이관용_20070211.hex
000 3001 009A 2954 3FFF 0DF3 0803 0183 00E3
008 0804 00E4 080A 00E5 016A 196B 1C0B 281B
010 0000 0000 0000 0000 0000 0000 1283 1303
018 1C05 1521 100B 1A0B 1C8B 2833 108B 1683
020 1303 0844 00BA 0845 00BB 0846 023A 00C2
028 0849 1C03 0A49 023B 00C3 083A 00C8 083B
030 00C9 1283 1623 1A8B 1D0B 2850 110B 30CB
038 1283 1303 0781 1683 0AC4 1903 0AC5 0AC0
040 1903 0AC1 0AB8 1903 0AB9 3001 0239 3090
048 1903 0236 1C03 2850 01B6 01B9 1283 149F
050 1683 1303 1F0C 285D 1283 1F0C 285D 1283
EEPROM Data
Enabled
Hex Only
00 00 00 00 00 FF FF FF FF FF FF FF FF FF FF FF
10 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
20 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
30 FF FF FF FF FF FF FF FF FF FF FF FF FF FF FF
Import Hex File + Write Device
Read Device + Export Hex File
PICkit 2

7) Plese remove Pickit2 upgrade board when complet massage is come out

8-2. Flash Upgrade



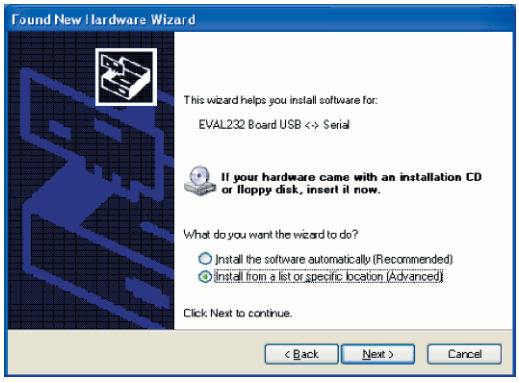
Flash Upgrade JIG

1) Installing CDM Driver

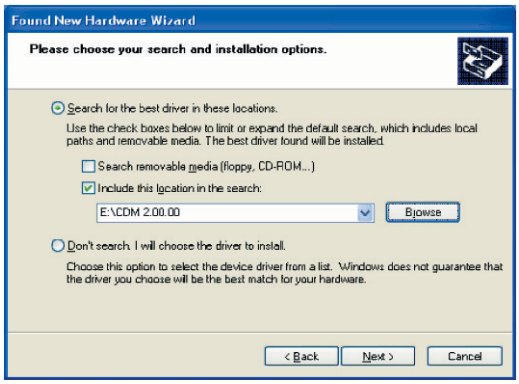
- Download the latest available CDM drivers from the FTDI web site and unzip them to a location.
- Connect the device to a spare USB port on your PC.
  Once the composite driver has been installed Windows Found New Hardware Wizard will launch.
  The screen below is shown.
  Select “No, not this time” from the options available and then click “Next” to proceed with the installation

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy
Can Windows connect to Windows Update to search for software?
Yes, this time only
Yes, now and every time I connect a device
No, not this time
Click Next to continue.
< Back
Next >
Cancel

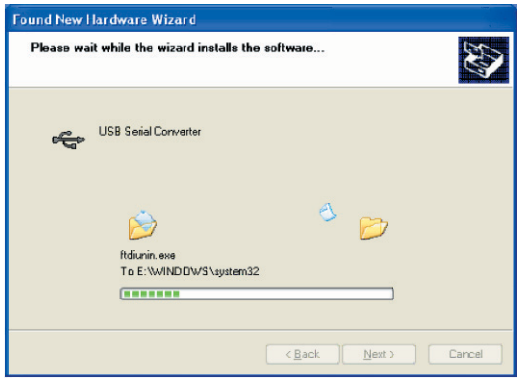
- Select “Install from a list or specific location (Advanced)” as shown below and then click “Next”.


Found New Hardware Wizard
This wizard helps you install software for:
EVAL232 Board USB <-> Serial
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

- Select “Search for the best driver in these locations” and enter the file path in the combo-box (ex.“E:₩CDM 2.00.00”in the example below) or browse to it by clicking the browse button.
  Once the file path has been entered in the box, click next to proceed.


Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
E:\CDM 2.00.00
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

- The following screen will be displayed as Windows XP copies the required driver files.

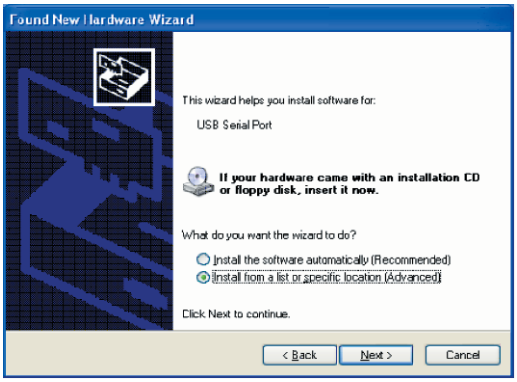


- Windows should then display a message indicating that the installation was successful. Click Finish to complete the installation for the first port of the device.

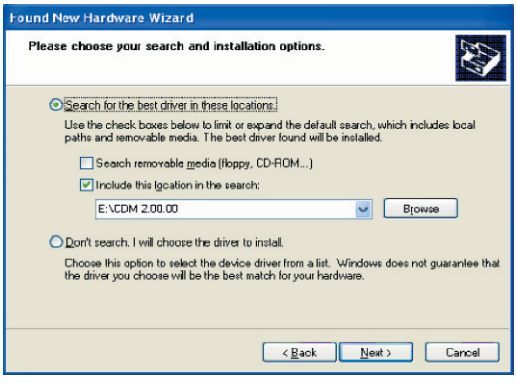
• The Found New Hardware Wizard will launch automatically to install the COM port emulation drivers.
As above, select “No, not this time” from the options and click “Next” to proceed with the installation.

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy
Can Windows connect to Windows Update to search for software?
Yes, this time only
Yes, now and every time I connect a device
No, not this time
Click Next to continue.
< Back
Next >
Cancel

• Select “Install from a list or specific location (Advanced)” as shown below and then click “Next”.

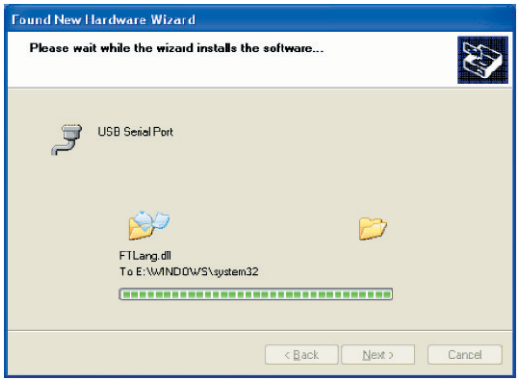

Found New Hardware Wizard
This wizard helps you install software for:
USB Serial Port
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

• Select “Search for the best driver in these locations” and enter the file path in the combo-box (ex.“E:₩CDM 2.00.00”in the example below) or browse to it by clicking the browse button.
Once the file path has been entered in the box, click next to proceed.


Found New Hardware Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
E:\CDM 2.00.00
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

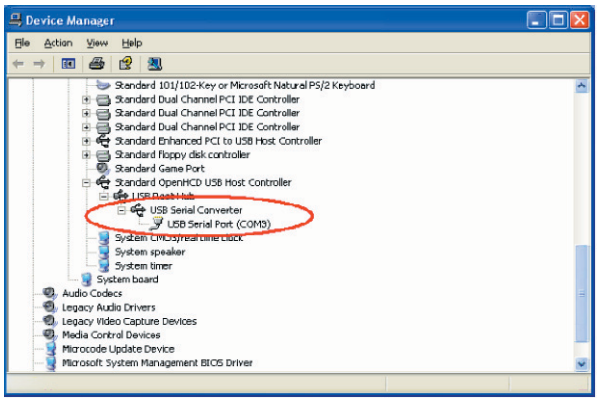
Software Upgrade Methord

• The following screen will be displayed as Windows XP copies the required driver files.



• Windows should then display a message indicating that the installation was successful. Click Finish to complete the installation for the first port of the device.

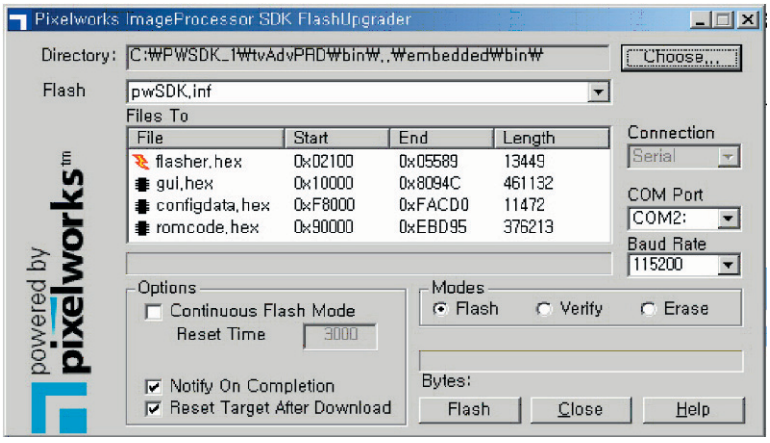
• Open the Device Manager (located in “Control Panel₩System” then select the “Hardware” tab and click “Device Manger”) and select “View > Devices by Connection”, the device appears as a USB Serial Converter with an additional COM port with the label “USB Serial Port”.


Device Manager
File Action View Help
Standard 101/102-Key or Microsoft Natural PS/2 Keyboard
Standard Dual Channel PCI IDE Controller
Standard Dual Channel PCI IDE Controller
Standard Dual Channel PCI IDE Controller
Standard Enhanced PCI to USB Host Controller
Standard Floppy disk controller
Standard Game Port
Standard OpenHCD USB Host Controller
USB Serial Converter
USB Serial Port (COM3)
System speaker
System timer
System board
Audio Codecs
Legacy Audio Drivers
Legacy Video Capture Devices
Media Control Devices
Microcode Update Device
Microsoft System Management BIOS Driver

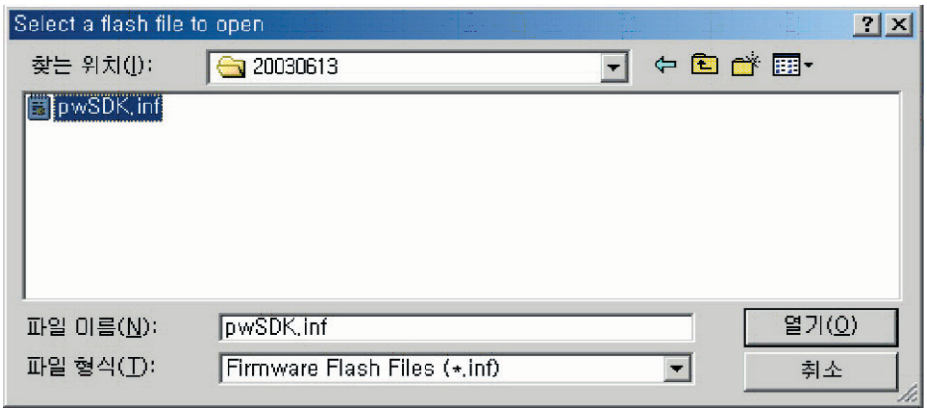
Software Upgrade Methord

• Connect USB cable to the USB port of the computer.
• Connect the phone jack cable the phone jack port of main PCB.

• Run Flashupgrader.exe in the PC to excute the program as shown below.

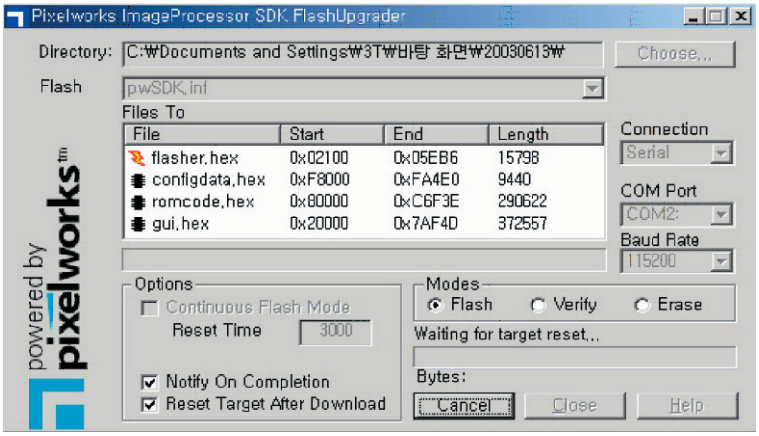


• Select current Upgrade file
i) Click “Choose···”button to select the file you want to upgrade.
ii) Select the file (pwSDK.inf) that you want to upgrade.

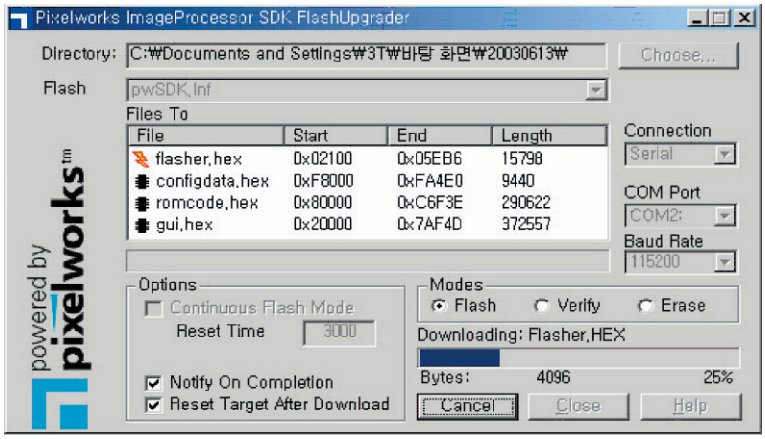


Software Upgrade Methord

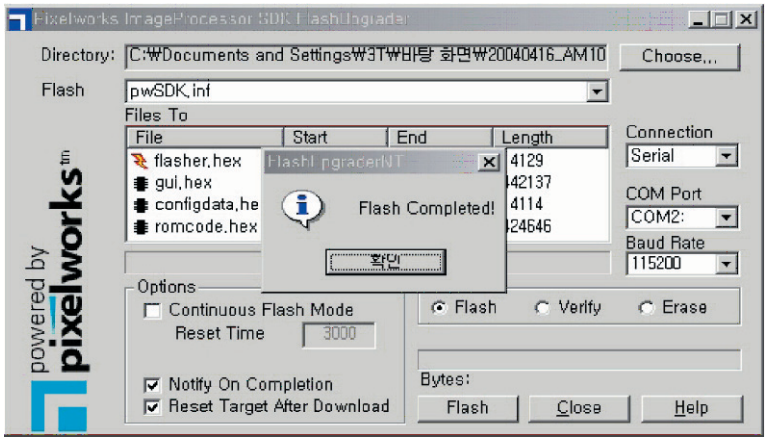
• Select correct COM Port and Baud Rate(115200) as shown below.
Then press Flash button to finish setup



• Turn on the power and then upgrade program will start the download as shown below.



• When the upgrading is complete, a window (below) will be opened.
Press “Finish” button to complete the process.



9. Trouble Shooting

Before starting Trouble Shooting

- Trouble diagnosing and repairing of set mean find out which PCBs or blocks are not working and replace them with new PCBs.
  Repairing the broken PCBs are not necessary.
  Keep the broken PCBs and return them to service center or R&D center.
- This Trouble Shooting list only contains representative and simple PCB trouble diagnosis and Module Exchange method.
  Therefore, if you find sets that are difficult to diagnose or to repair, contact R&D center.
- Basic Trouble Diagnosis procedure
  1) Check problem Symptoms
  2) Open Back Cover
  3) Trouble Diagnosis & Replace broken PCB
  4) Adjust new PCB module
  5) HEATRUN for at least 30 minutes, inputting Full White test pattern
  6) Full Function test
  7) Repair Complete
- Required Equipment for trouble diagnosis
  1) Digital Multimeter (User Mode : measure DC Voltage, measure Diode Voltage, Short-open test)
  2) Screwdriver (or electric screwdriver), Plastic adjusting tool
  3) Oscilloscope (for detailed examination only)
- Before replacing PCBs, you MUST disconnect the AC Power.
- After replacing High Voltage Board (Power PCB, Y-SUS, Z-SUS, Data B/D, Scan B/D), and Main, extra adjustment might be needed. (Refer to 6-1. MODULE POWER Adjustments and Test Point Locations)
- Dust or extraneous materials may cause bad connections.
  Therefore, try to apply soft brush, air fresher, or breath to clean the dust or extraneous materials.
- While assembling the set in factory, it could have bad connection.
  Try to reassemble the necessary connectors and also check the state of the connectors.
- After the set is repaired, leave Back Cover open for followings.
  Run HEAT RUN for at least 30 minutes by displaying Full White test pattern of Service Mode (Refer to Service Manual '5. Service Mode' part).
  Check the screen conditions and basic functions (remote control operation etc.)
- After Back Cover is closed, redo HEAT RUN for at least one hour with Full White input using Test Pattern of Service Mode.
  Check the screen conditions and basic functions.

Trouble Shooting

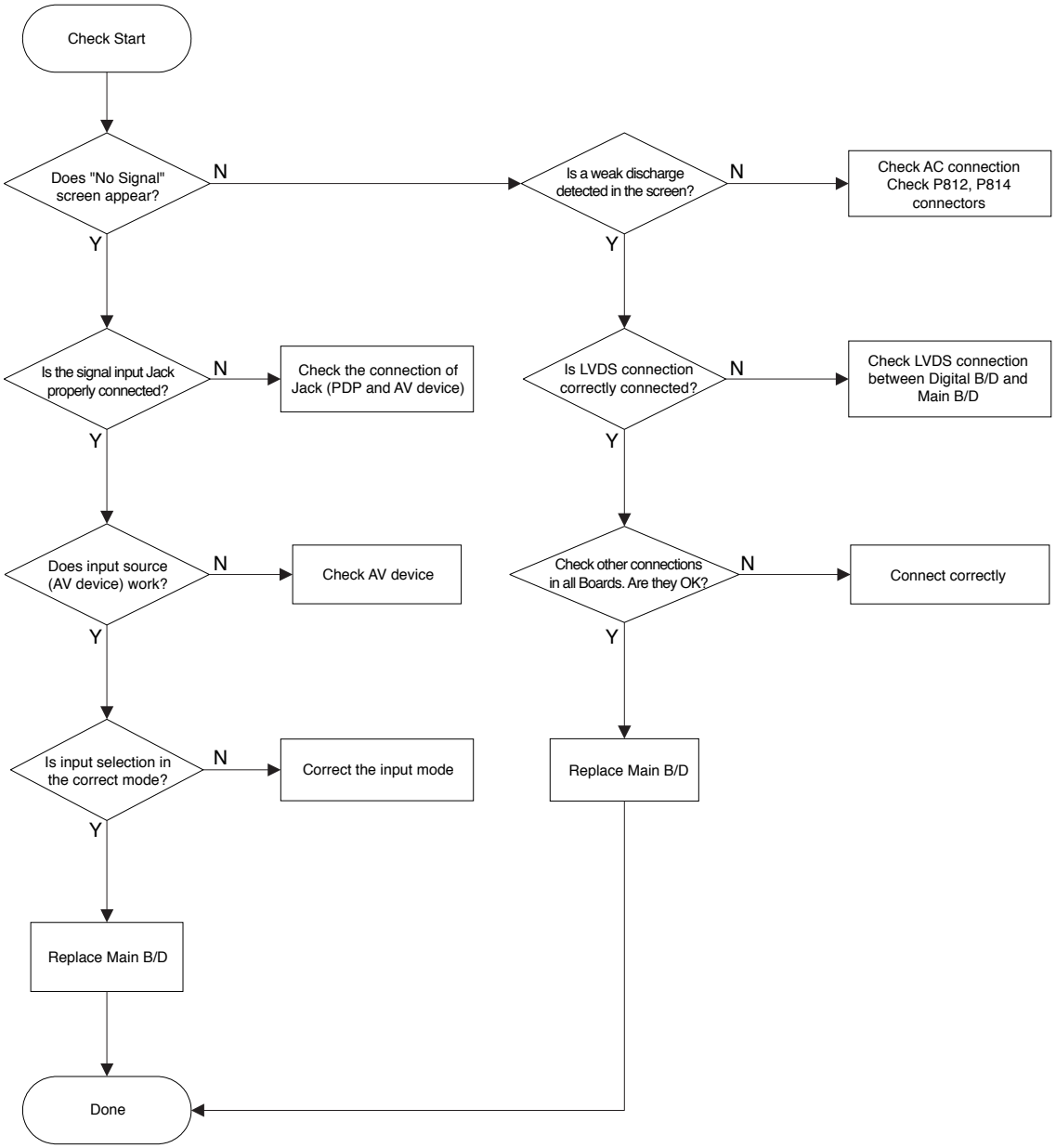
- Caution 1 !!
  When disconnecting / connecting connectors, you MUST disconnect the AC Power.
  And check the direction and position of the connectors before working.
- Caution 2 !!
  Whenever you reassemble connectors connecting High Voltage Board and POWER PCB, remaining voltage still exists in the POWER PCB could cause electric shock and damage the set.
  Therefore always reassemble the connectors several minutes after AC power disconnect.
  To be more careful, using a Multimeter you should check to see if Vs is less than 10V and then connect connectors.

Definition

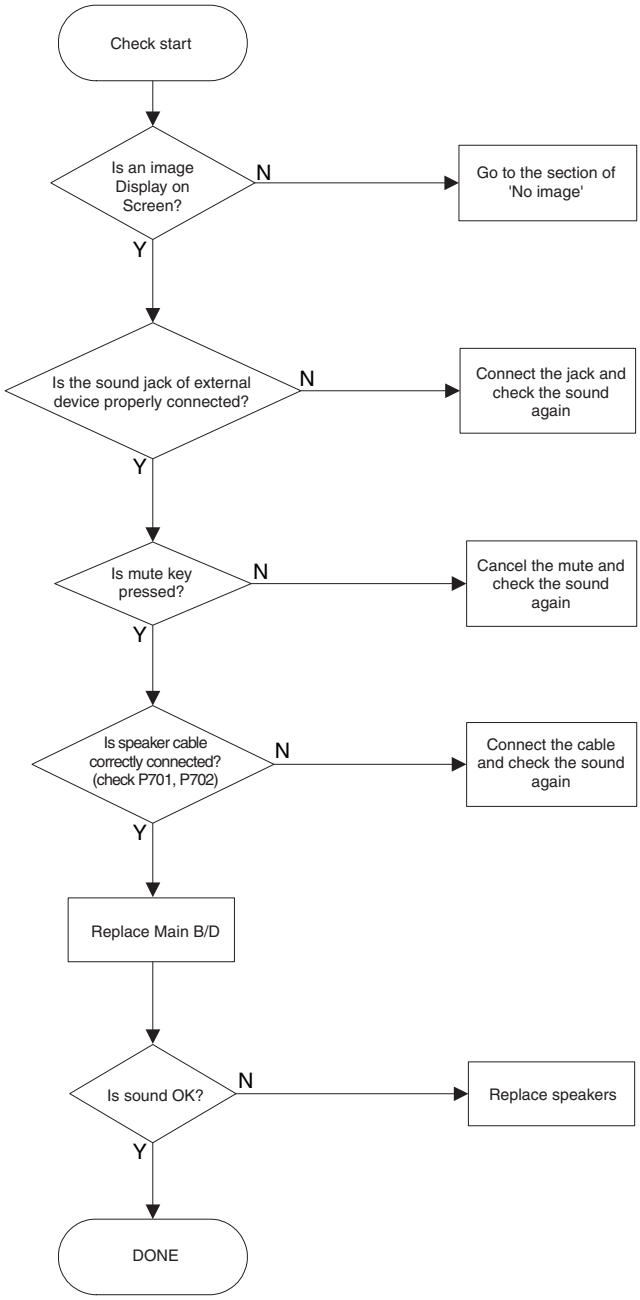
- Red LED - Stand by state (ready for operating)
- Green LED - The set is turned on and operating
- Shut Down - While Green LED, power PCB does not make any operating sound or noise (i.e. Power relay does not operate normally)
- Weak Discharge - The screen looks like BLACK, but there are little discharged cells on the screen
- Abnormal Discharge - Shows unexpected discharged cells on the image
- No Signal - OSD is working but no images are displaying
- No Raster - Not even OSD is displaying

Trouble Shooting

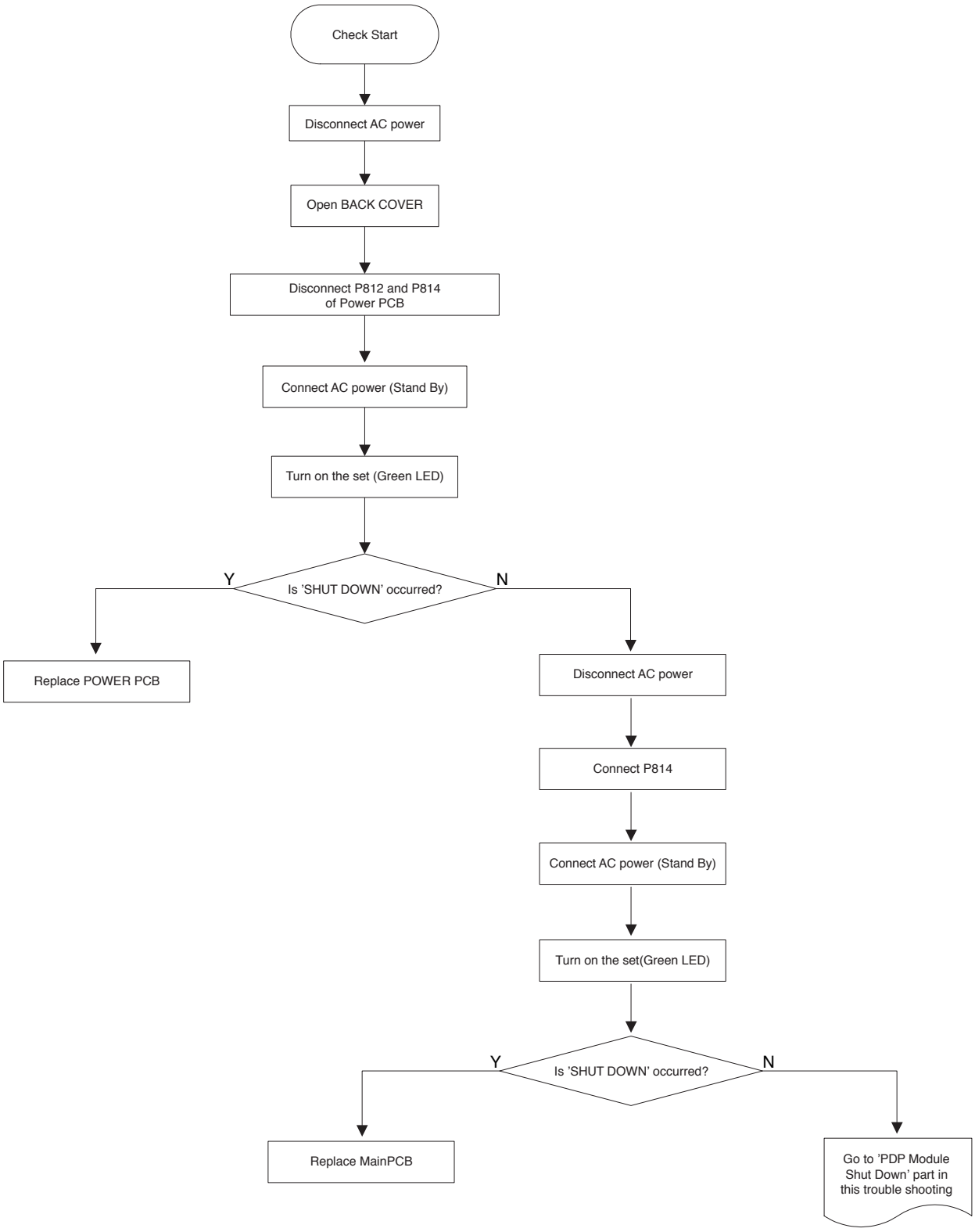
9-1. No Signal or No Raster



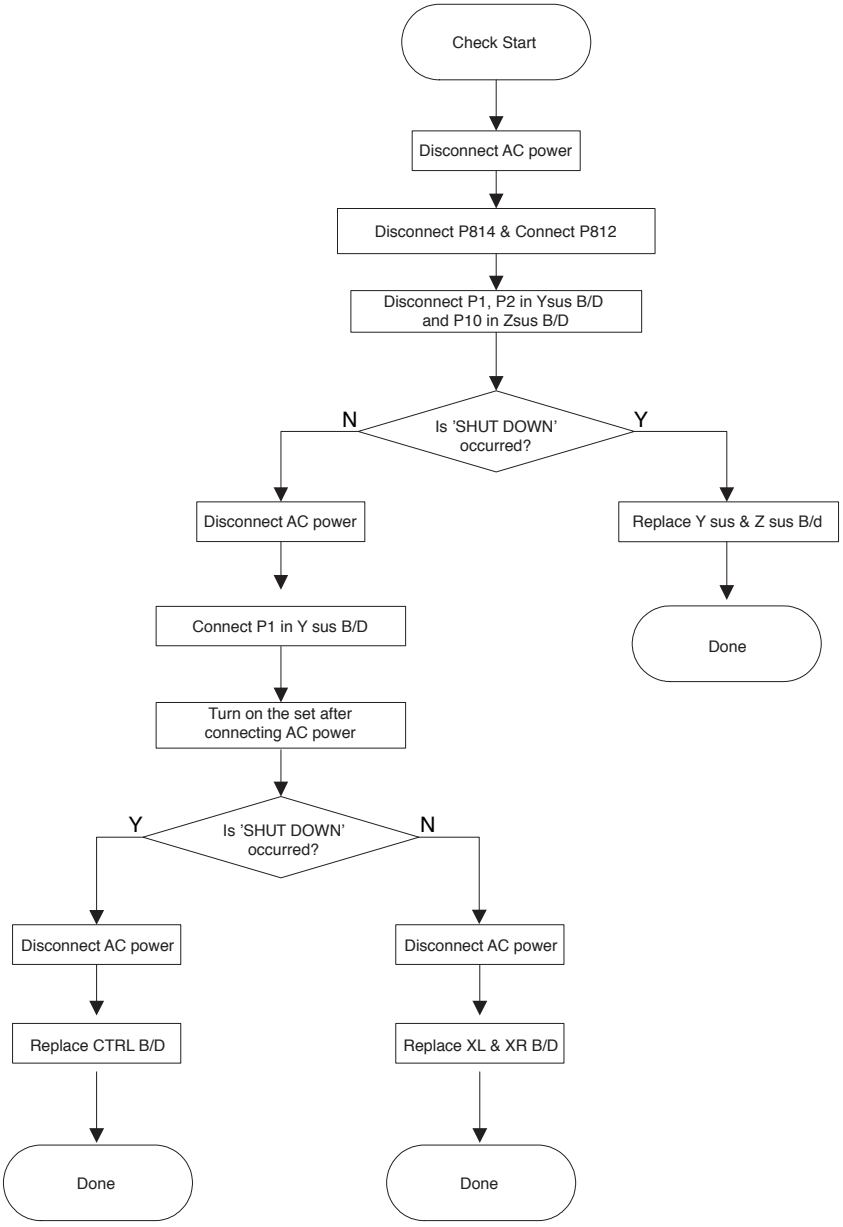
9-2. No Sound


Check start
Is an image Display on Screen?
N
Go to the section of 'No image'
Y
Is the sound jack of external device properly connected?
N
Connect the jack and check the sound again
Y
Is mute key pressed?
N
Cancel the mute and check the sound again
Y
Is speaker cable correctly connected? (check P701, P702)
N
Connect the cable and check the sound again
Y
Replace Main B/D
Is sound OK?
N
Replace speakers
Y
DONE

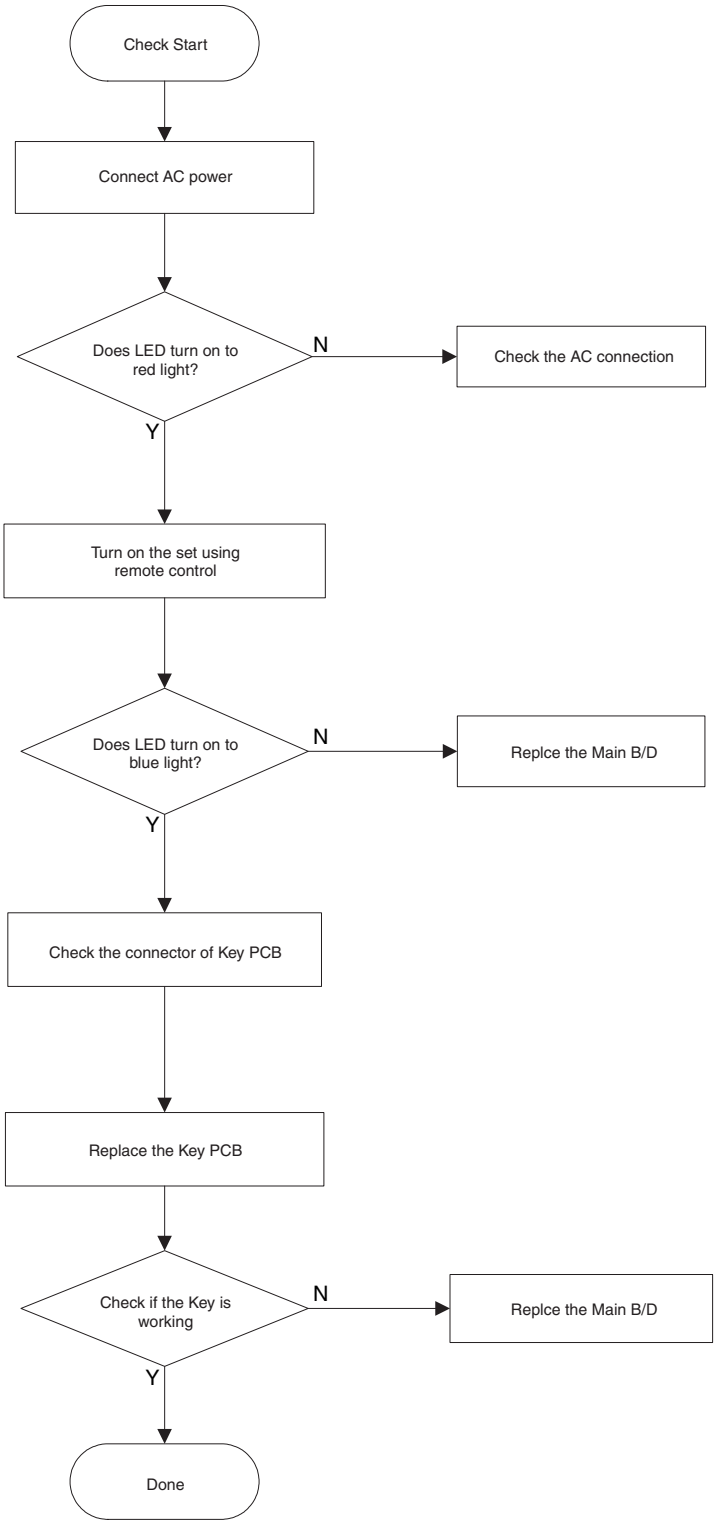
9-3. Shut Down


Check Start
Disconnect AC power
Open BACK COVER
Disconnect P812 and P814 of Power PCB
Connect AC power (Stand By)
Turn on the set (Green LED)
Is 'SHUT DOWN' occurred?
Y
N
Replace POWER PCB
Disconnect AC power
Connect P814
Connect AC power (Stand By)
Turn on the set(Green LED)
Is 'SHUT DOWN' occurred?
Y
N
Replace MainPCB
Go to 'PDP Module Shut Down' part in this trouble shooting

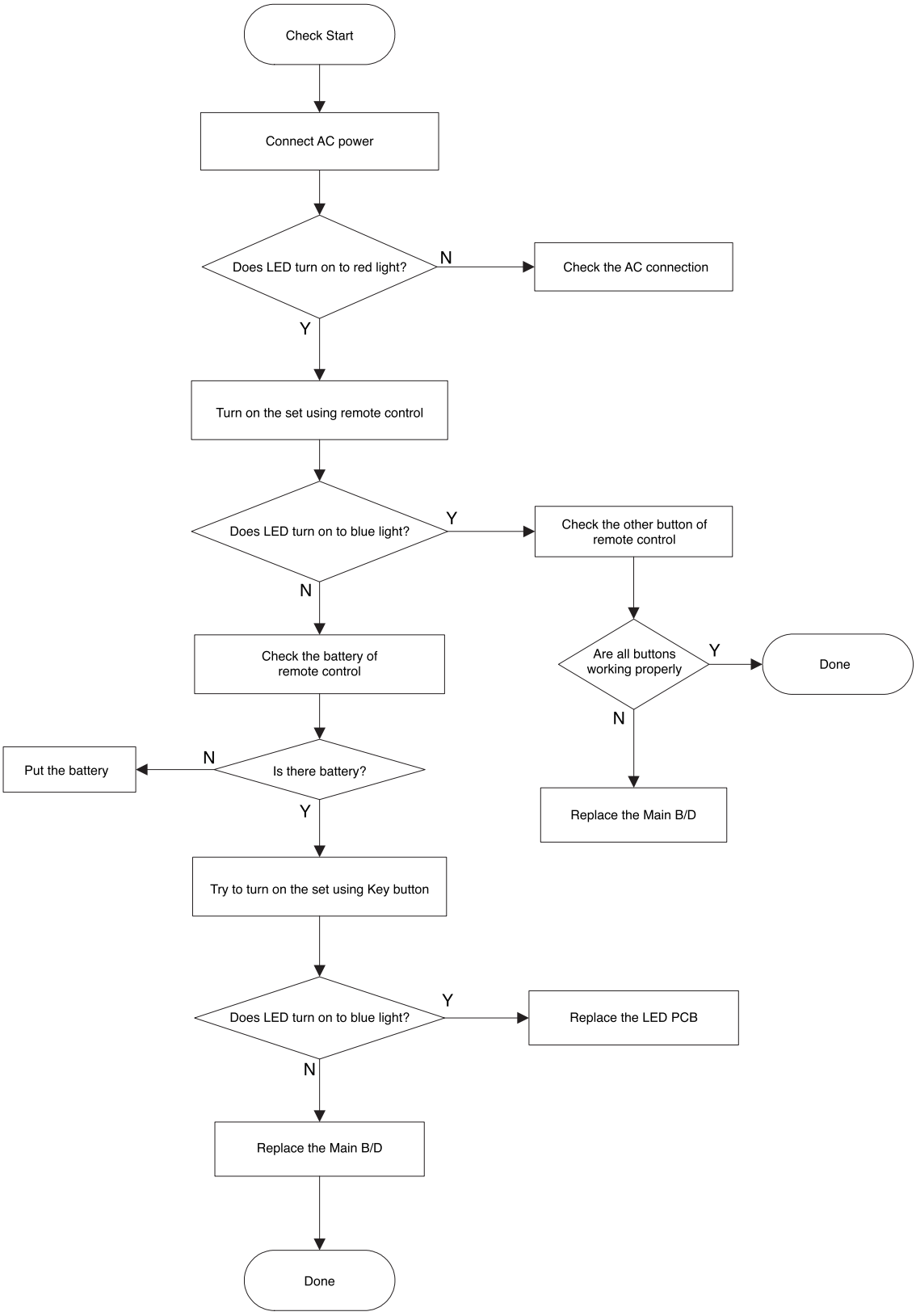
A) Low Voltage Shut Down



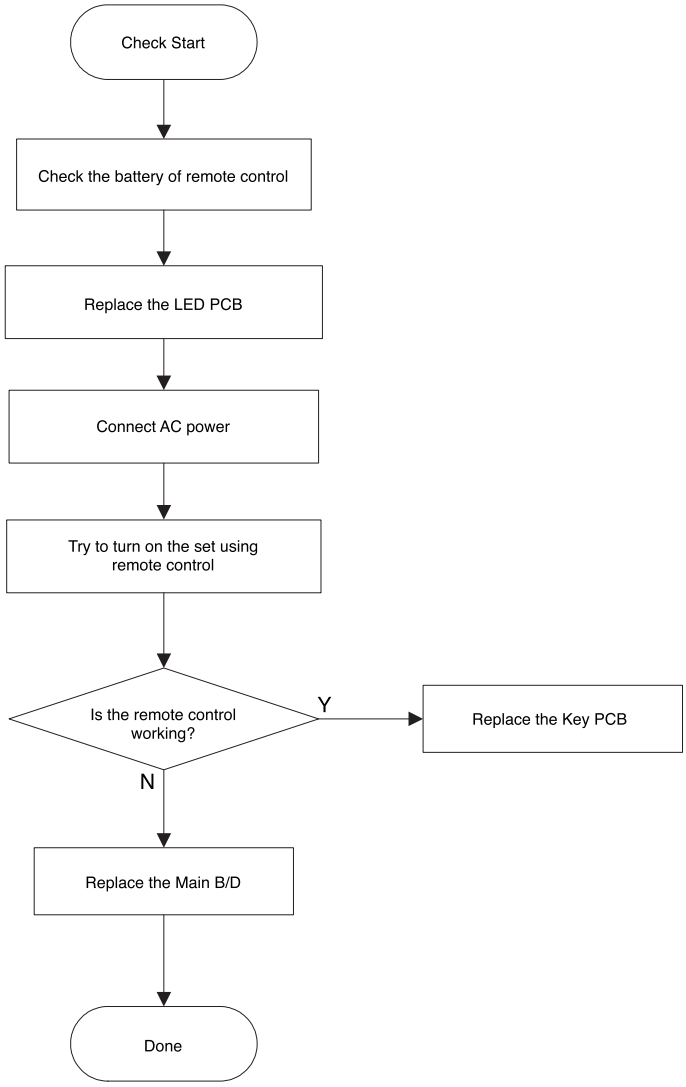
9-4. No Key Operation



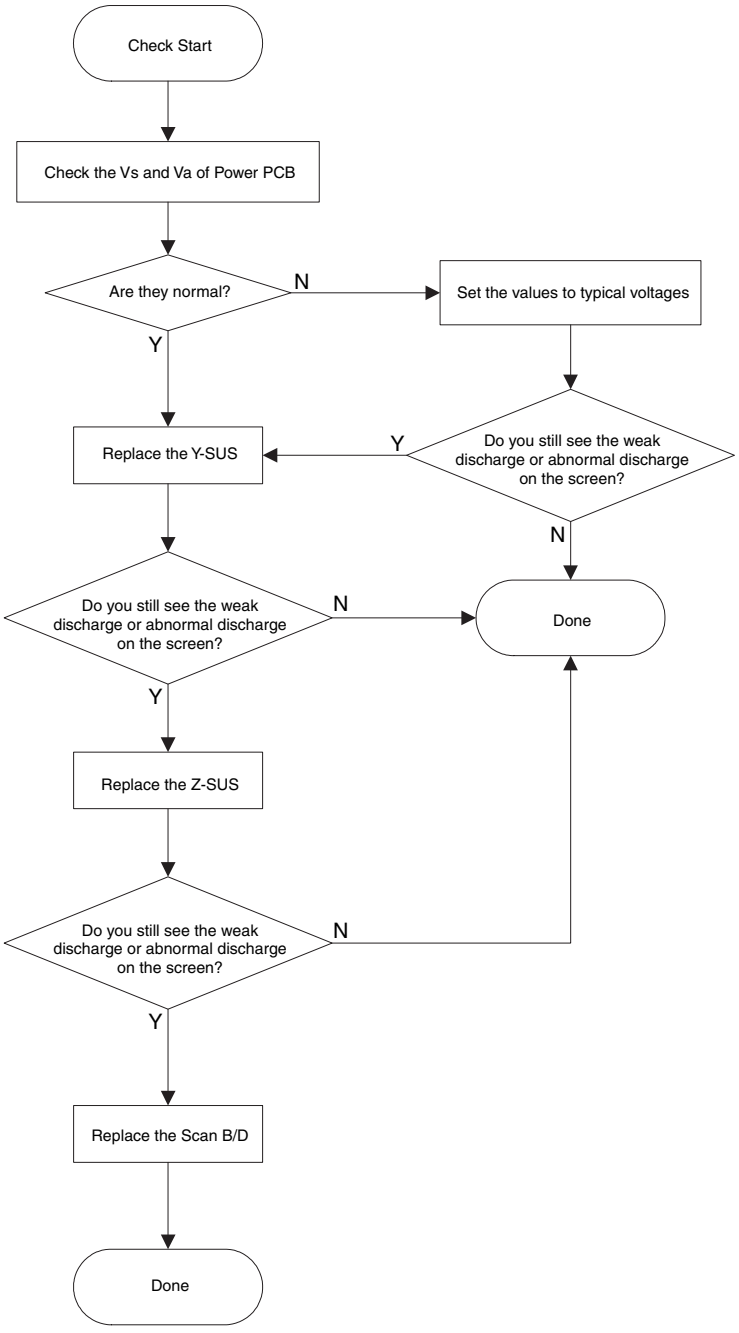
9-5. No Remote Control Operation



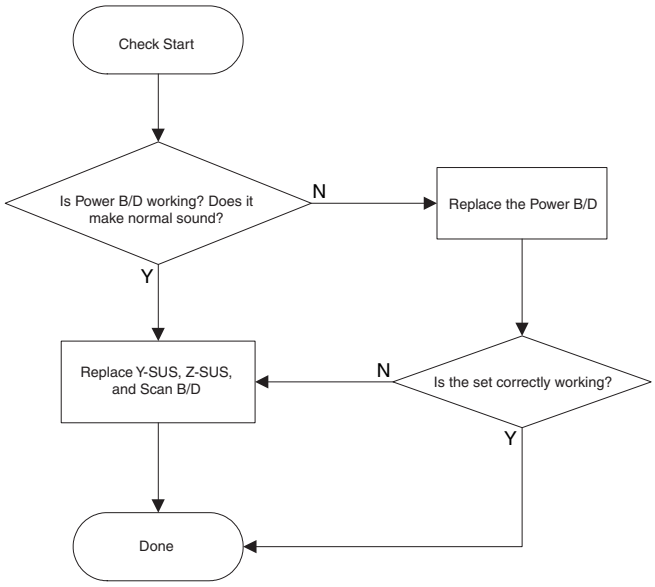
9-6. No Key and Remote Control Operation



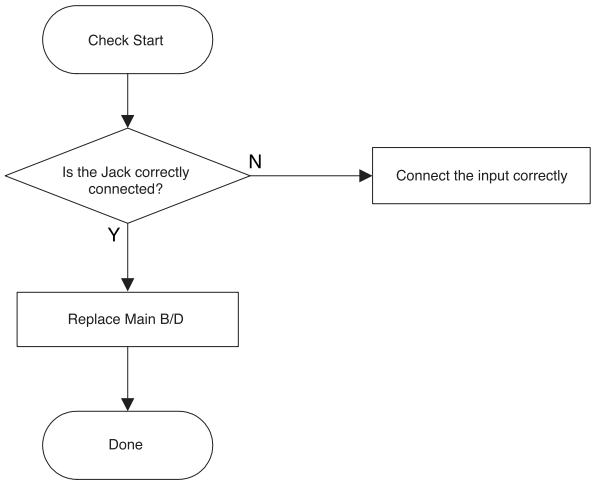
9-7. Abnormal Discharge



9-8. Not Even Weak Discharge



9-9. Particular Input Signal(Video, PC, TV or Component) Does Not Work



9-11. Others

A) Set Is Making Unusual Noise

-> Check the connection of Power PCB and Module. If they are OK, replace the Power PCB and check the symptom again.

B) Occasionally, the set does not operate normally.

Turning off and on the AC power make the set to operate normal again

-> Upgrade the software first.

If you still see the same symptom, replace the Main and Sub B/D.

C) Images are abnormal

-> Check the default values of service mode and user mode.

If they are OK, replace the Main and Sub B/D.

If they are not OK, upgrade the software and check the symptom again.

10. Assembly list

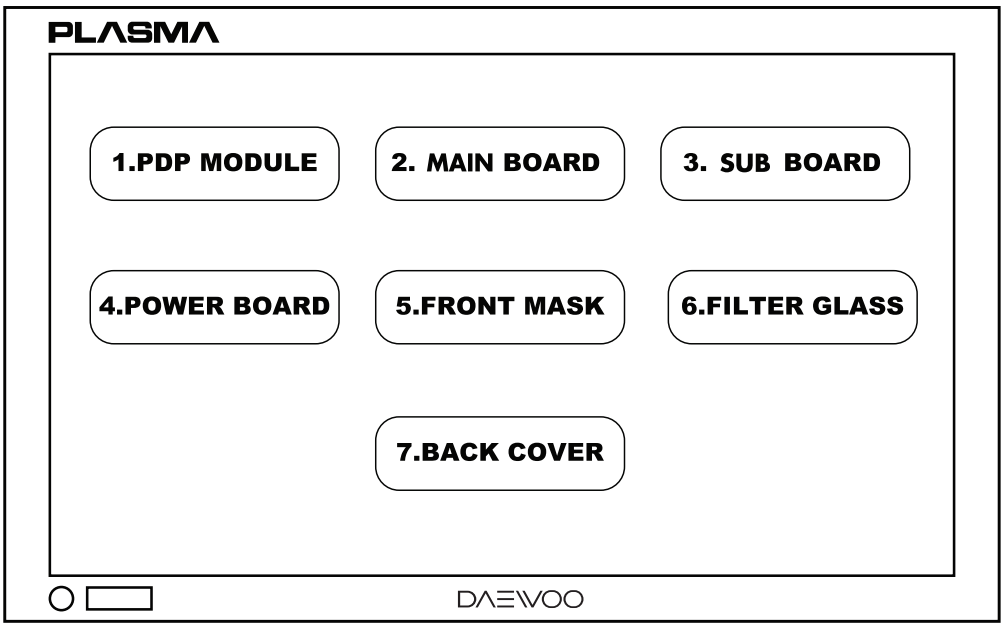
No.	PCB ASS'Y CODE	ASS'Y NAME	ASS'Y DESCRIPTION
1	48B5655E05	TRANSMITTER REMOCON	R-55E05 (AAA)
2	PTACPWG405	ACCESSORY AS	DPP-32F1BMB
3	4850Q00910	BATTERY	R03/NN
4	5PZCA2009A	FILTER EMI	ZCAT2035-0930A
5	PTBCSHG388	COVER BACK AS	DPX-32F1BMB
6	PTCACAG405	CABINET AS	DPP-32F1BMB
7	485A102780	GLASS FILTER	DFM3203PFN
8	4852335600	PANEL L	SGCC T=1.5
9	7002400852	SCREW MACHINE	TRS 4X8 MFZN BK 3CR
10	4852335700	PANEL R	SGCC T=1.5
11	4852335800	PANEL B	SGCC T=2.0
12	4853299400	BRKT STAND	SGCC T=0.8
13	485A115070	SHIELDRON	10X45X2.0(T) CU+NI
14	4853299200	BRKT INLET FILTER	SGCC T=1.5
15	4856815910	CLAMP WIRE	EGI T0.4+TUBE+PIE 4.2
16	4853299100	BRKT SUPPORT	SGCC T=1.5
17	4851D01901	PLATE TERMINAL CH A AS	3636601 + 5950901 (SP-900PF)
18	4853834500	FRAME SUPPORT R	SGCC T=1.5
19	4853834600	FRAME SUPPORT B	SGCC T=1.5
20	4853834400	FRAME SUPPORT L	SGCC T=1.5
21	4854966001	BUTTON CH	ABS BK
22	4852183300	COVER CH	SGCC T=0.8
23	4859006661	CABLE LVDS	1001-31FC+1001-31FC+SP901X=350
24	5PZCA2009A	FILTER EMI	ZCAT2035-0930A
25	4850K01700	CORE FERRITE	BNF-1130
26	4850K01700	CORE FERRITE	BNF-1130
27	PTFMSJG405	MASK FRONT AS	DPP-32F1BMB
28	PTSPPWG405	SPEAKER AS	DPP-32F1BMB
29	PTFRCAG405	FRAME AS	DPP-32F1BMB
30	PTSNSWG405	STAND AS	DPP-32F1BMB
31	PTMPMSG405	PCB MAIN MANUAL AS	DPP-32F1BMB
32	PTUNMSG405	PCB UNION MANUAL AS	DPP-32F1BMB
33	4850M002PD	MODULE PDP	PDP32F1X031(32F1T031)
34	485AS00028	CTRL ASSY	
35	485AS00029	XRLT ASSY	Data LEFT BOARD
36	485AS00030	XRRT ASSY	Data RIGHT BOARD
37	485AS00031	YSUS ASSY	Y-SUS BOARD
38	485AS00032	ZSUS ASSY	Z-SUS BOARD
39	485AS00033	AC Noisefilter	
40	485AS00034	32F1 Lite-On PSU	PSU
41	485AS00035	32F1 LGIT PSU	PSU

Assembly list

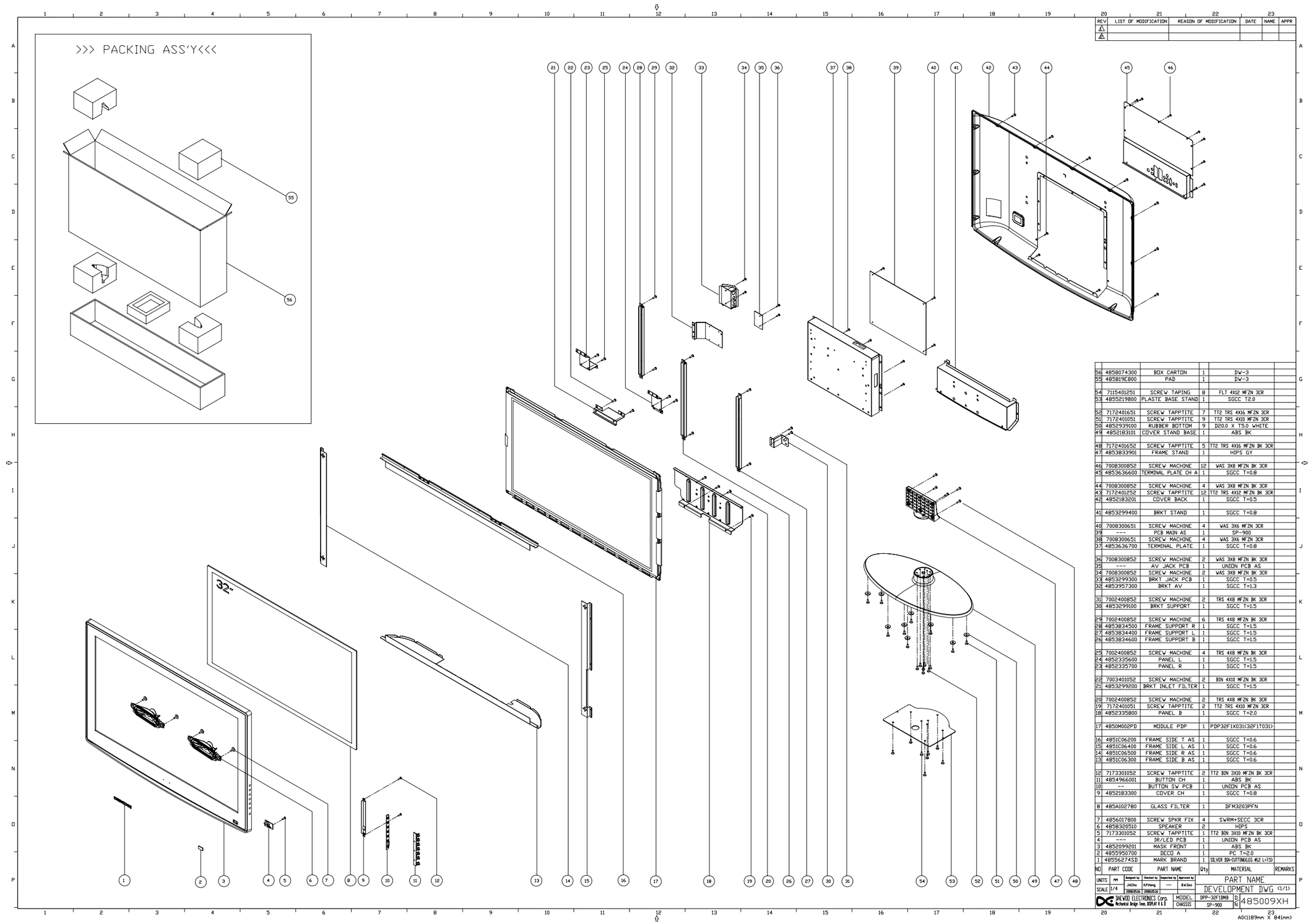
32F1B Panel

1	4850M006PD	MODULE PDP	PDP32F1X374(32F1T374)
2	485AS00090	CTRL ASSY	
3	485AS00091	XRLT ASSY	Data LEFT BOARD
4	485AS00092	XRRT ASSY	Data RIGHT BOARD
5	485AS00093	YSUS ASSY	Y-SUS BOARD
6	485AS00094	ZSUS ASSY	Z-SUS BOARD
7	485AS00033	AC Noisefilter	
8	485AS00034	32F1 Lite-On PSU	PSU
9	485AS00035	32F1 LGIT PSU	PSU

11. Structure of PDP SET



12. Exploded View



REV	LIST OF MODIFICATION	REASON OF MODIFICATION	DATE	NAME	APPR
1					
2					

56	4858074300	BOX CARTON	1	DW-3	
55	485819E800	PAD	1	DW-3	
54	7115401251	SCREW TAPING	8	FLT 4X12 MFZN 3CR	
53	4855219800	PLASTE BASE STAND	1	SGCC T2.0	
52	7172401651	SCREW TAPPTITE	7	TT2 TRS 4X16 MFZN 3CR	
51	7172401051	SCREW TAPPTITE	9	TT2 TRS 4X10 MFZN 3CR	
50	4852939100	RUBBER BOTTOM	9	D20.0 X T5.0 WHITE	
49	4852183101	COVER STAND BASE	1	ABS BK	
48	7172401652	SCREW TAPPTITE	5	TT2 TRS 4X16 MFZN BK 3CR	
47	4853833901	FRAME STAND	1	HIPS GY	
46	7008300852	SCREW MACHINE	12	WAS 3X8 MFZN BK 3CR	
45	4853636600	TERMINAL PLATE CH A	1	SGCC T=0.8	
44	7008300852	SCREW MACHINE	4	WAS 3X8 MFZN BK 3CR	
43	7172401252	SCREW TAPPTITE	12	TT2 TRS 4X12 MFZN BK 3CR	
42	4852183201	COVER BACK	1	SGCC T=0.5	
41	4853299400	BRKT STAND	1	SGCC T=0.8	
40	7008300651	SCREW MACHINE	4	WAS 3X6 MFZN 3CR	
39	---	PCB MAIN AS	1	SP-900	
38	7008300651	SCREW MACHINE	4	WAS 3X6 MFZN 3CR	
37	4853636700	TERMINAL PLATE	1	SGCC T=0.8	
36	7008300852	SCREW MACHINE	2	WAS 3X8 MFZN BK 3CR	
35	---	AV JACK PCB	1	UNION PCB AS	
34	7008300852	SCREW MACHINE	2	WAS 3X8 MFZN BK 3CR	
33	4853299300	BRKT JACK PCB	1	SGCC T=0.5	
32	4853957300	BRKT AV	1	SGCC T=1.3	
31	7002400852	SCREW MACHINE	2	TRS 4X8 MFZN BK 3CR	
30	4853299100	BRKT SUPPORT	1	SGCC T=1.5	
29	7002400852	SCREW MACHINE	6	TRS 4X8 MFZN BK 3CR	
28	4853834500	FRAME SUPPORT R	1	SGCC T=1.5	
27	4853834400	FRAME SUPPORT L	1	SGCC T=1.5	
26	4853834600	FRAME SUPPORT B	1	SGCC T=1.5	
25	7002400852	SCREW MACHINE	4	TRS 4X8 MFZN BK 3CR	
24	4852335600	PANEL L	1	SGCC T=1.5	
23	4852335700	PANEL R	1	SGCC T=1.5	
22	7003401052	SCREW MACHINE	2	BIN 4X10 MFZN BK 3CR	
21	4853299200	BRKT INLET FILTER	1	SGCC T=1.5	
20	7002400852	SCREW MACHINE	2	TRS 4X8 MFZN BK 3CR	
19	7172401051	SCREW TAPPTITE	2	TT2 TRS 4X10 MFZN 3CR	
18	4852335800	PANEL B	1	SGCC T=2.0	
17	4850M002PD	MODULE PDP	1	PDP32F1X031(32F1T031)	
16	4851C06200	FRAME SIDE T AS	1	SGCC T=0.6	
15	4851C06400	FRAME SIDE L AS	1	SGCC T=0.6	
14	4851C06500	FRAME SIDE R AS	1	SGCC T=0.6	
13	4851C06300	FRAME SIDE B AS	1	SGCC T=0.6	
12	7173301052	SCREW TAPPTITE	2	TT2 BIN 3X10 MFZN BK 3CR	
11	4854966001	BUTTON CH	1	ABS BK	
10	---	BUTTON SW PCB	1	UNION PCB AS	
9	4852183300	COVER CH	1	SGCC T=0.8	
8	485A102780	GLASS FILTER	1	DFM3203PFN	
7	4856017800	SCREW SPKR FIX	4	SWRM+SECC 3CR	
6	4858320510	SPEAKER	2	HIPS	
5	7173301052	SCREW TAPPTITE	1	TT2 BIN 3X10 MFZN BK 3CR	
4	---	IR/LED PCB	1	UNION PCB AS	
3	4852099201	MASK FRONT	1	ABS BK	
2	4855950700	DECO A	1	PC T=2.0	
1	48556274SD	MARK BRAND	1	SILVER DIA-CUTTING(LEG #12 L=7.5)	
NO	PART CODE	PART NAME	Qty	MATERIAL	REMARKS

UNITS	mm	Designed by	Checked by	Inspected by	Approved by	PART NAME
SCALE	1/4	JHCho 2008.05.26	KPJHong 2008.05.26	---	B.W.Seo	DEVELOPMENT DWG (1/1)

DAEWOO ELECTRONICS Corp. Technical Design Team. REMARK # 1 | MODEL: DPP-32F1BMB | D/N: 485009XH | CHASSIS: SP-900

A0(1189mm X 841mm)

DAEWOO ELECTRONICS CORP.
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